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UNDERSTANDING
THE POWER OF
**RESILIENCE
ECONOMY**

An Inter-Disciplinary Perspective
to Change the World Attitude
to Socio-Economic Crisis

MOHAMED BUHEJI

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The Message of Life is Simple

*“Unity and Coexistence bring Prosperity – Segregation
and Alienation bring Socio-Economic Disparity,
Life Instability and Deep Recessions”*

M Bubeji

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PREFACE

Since we've established the concept of "Inspiration Economy" in the "Handbook of Inspiration Economy" followed by a book called "Breaking the Shield" on Inspiration Engineering; we've believed overtime and focused on experiential learning that inspiration won't be created unless we take care of type of economies that are highly linked with life purposefulness that were resembled in both: Resilience and Youth. Thus in last month's we've worked more towards creating models that can minimise unwanted social status or conditions or problems (such poverty, high migration of youth, wealth inequality, low quality of life, low lifelong learning, etc.) and studied closely its relevant impacts through focusing on these three angles that can flourish our socio-economies: institutionalising the inspiration economies related practices, develop more the concept and discovering the untapped powers of these economies. This all came through the support of field projects that are linked to the concepts presented in this book.

We discovered overtime specially in the last three years that 'Resilience Economy' as a concept is highly we've come through as we developed more inspiration economy enablers. Even though the concept of "resilience economy" have existed with different details and under different names and practices in the literature. Yet, we found that resilience economy have not been explored and introduced enough as a complete economy that societies, countries and organisations can go through in order to deliver better socio-economic changes and outcomes. In fact, from all the literature reviewed, specifically in the last 30 years, the concept been more approached as a description of a situation to be reached or already reached than about a methodology for life. Therefore, there is a major gap

in literature and area for much further exploration for both practitioners and researchers, or even change community leaders.

This book targets to provide a scope of using resilience economy as a roadmap to boost resilience, improve the ability to manage its existence, analyse its characteristics along with its components and most of all improve its influence on the socio-economy. It is a book with genuine goal to show the reader how resilience transforms and match peoples wealth towards people's wants.

In this review book of the potentials of resilience economy we have put forward to the reader ten chapters that would exemplify the process of resilience economy. Chapters one and two are meant to set the base about what is resilience economy and how does it impact our socio-economy. Chapter three talks about resilience economy history and its latest development. Then we discuss about the different resilience economy enablers and types in both chapters four and five. Chapters six and seven investigates how to manage change towards resilience economy in order to achieve better transformation and how we build this change through resilience engineering. Chapter eight is linked to all the previous chapters as it focuses on when, how resilient economy would be measured. This is followed by having resilience through problem solving where complex situations of resilience would be discussed and what are the best practices in dealing with it. Last chapter is very important too since it is about sustaining resilience economy and how to create reference models.

From this exercise we hope that the readers of this multidiscipline 'resilience economy' work would be able to identify gaps in their economies and socio-economies and see how they make it more resilient while redeveloping the roadmap or strengthening it. I hope that this book would help organisation and change agents, as consultants and civil society leaders to review the current and future policies and/or programs.

The book shows how resilience economy (RE) success depends on multi-sectoral expertise. Timing is also critical to motivating people to participate in resilience, i.e. it would probably be easier to pass during (or just after)

a crisis or during efforts to maintain success. RE can be achieved gradually in phases if linked to a country's strategy development cycles that can be translated into policies and programs. This book helps to create the mindset for RE that would build a clearer understanding of the interests of the key RE influencers.

The book is meant to be full of examples and stories on how attitudes and therefore psychology of the mindset plays a role in defining better resilient socio-economies. Our intention as part of RE is to inspire people to get totally engaged with resilience spirit and practices. Observing resilient societies shows us that applying 'pull thinking' and using practices of 'inspiration economy' and engineering would ensure a self-sufficient resilient economy.

Finally, our message in this journey so simple "even though you can engineer economic prosperity without resilience, you can't maintain and sustain prosperity without resilience based economy".

Keywords of Resilience Economy

There are many keywords that would be linked or reflect the move towards a Resilience based Economy; besides the words "Resilience" or "Resilient". Keywords as sharing – collaboration – Synergy - Humble – abundance thinking – pull thinking– empathetic thinking – art of giving – ability to give – ability to contribute – ability to manage fear – holistic thinking – lean thinking - mindset change- management of setbacks; are all milestones and indicators of resilience based economy or socio-economy.

More advanced words as resilience mechanisms, resilience engineering, resilience psychology, resilient mind, coexistence, tolerance, economic resilience, economic vulnerability, macroeconomic & microeconomic stability, market efficiency, governance; are also indicators of resilience based driven efforts and outcomes; if they used with clear plans.

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CHAPTER ONE

DEFINITION AND DEMAND FOR RE

Introduction

Resilience is highly used in science and arts almost every day while we might not see it linked to our existence. With resilience and resilient mindset we would see and appreciate many things in our life and where we could optimise the influence to our socio-economy.

Today, having a book about resilience economy might be seen as a luxury business idea or a theory, however you just take a pause and think about it we are practicing for sure some resilience economy in different ways without may be realising it, however the more we are aware and intentionally use these practices the more we can influence our socio-economy to be more agile and resilient to any sudden or unplanned shocks. In short, this type of economy requires knowledge to optimise its returns.

In this book we shall try to cover both sides of resilience economy, the structured and non-structured side. The first part, i.e. the structured side of resilience economy is the part we try to explain with evidence based resilience research that came as an outcome of many years of dedication from multiple scientific disciplines. While the second part, the un-structured one is what we'll try to explore in this book as study the different resilience stories when we talk about resilience design, engineering, monitoring and management of change and transformation.

We'll try to answer in this journey why resilience economy is becoming more essential now, and what resilience economy means to us as individuals, organisations and societies. We'll explore together the key components that would enhance organisational resilience and can develop its capacity further.

We discuss in this book also how the repeated financial and sovereign debts crisis, besides the different bubbles crisis raised the importance of having a resilience based economy. The importance of economic resilience even is underlined today by the rising environmental global warming that lead to the realisation for having flexible economies that are more resilient to negative shocks.

We have many examples in this book that might help us understand the importance of resilience in our socio-economic practice. We'll try to study in different places in this journey how some of the European Union (EU) leading countries, as Germany, Switzerland and Austria were the earliest to ensure that their economies become resilient, flexible and away from being rigid. We experience how the return of this high flexibility and resilience can help a country like Ireland or even Iceland where they can come back stronger even after major financial shock of their banking sectors and in just few months.

In this book, we measure the resilient capacities of the different societies and organisation from their ability to withstand significant adverse shocks by raising the independence of their socio-economic practices. We show the different ways to do these measures of resilience economy practices, however the main one are through directly looking at common shocks and the immediate country-specific reaction, or through focussing on the likelihood that a country enters in periods of particularly strong declines in output.

Acemoglu et al (2003) studies found that countries with weak institutions suffer substantially more volatility as measured by the standard deviation of per capital output. Earlier Rodrik (1999) even noted that having external shocks on growth can create greater latent social conflicts in the economy and even weaken conflict management capacity. Therefore, we discuss at different places in this book the importance of well-functioning of economic resilience and we can create this and sustain it.

So, let us start the journey in this chapter by understanding what is resilience and how it is related to the economy, as we prepare for establishing a human journey that would spread the sustenance of love, care, wellbeing, synergy and with more empathetic thinking practices.

Resilience Story

A recent large-scale, longitudinal survey of over 1.5 million employees in 4,500 companies across 185 countries conducted as part of the Global Corporate Challenge found that approximately 75% of the workforce experienced moderate to high stress levels — and more specifically, that 36% of employees reported feeling highly or extremely stressed at work, with a further 39% reporting moderate levels of workplace stress. The current rising levels of stress in the workplace should be cause for concern, as there is a direct and adverse relationship between negative stress, wellness and productivity. The study show the importance of building resilience mindset on both the organisation and individual level and then the community in order to ensure wellness of life in a turbulent world.

Defining Resilience

The term of resilience is taken over from the field of physics and engineering and means the characteristic size of materials behaviour to stress due to shocks, the relationship between the constant mechanical works consumed for shock flexion of a specimen and the surface of the cross section in which the respective tear occurred.

In psychology, resilience is measured very carefully since it reflects the capacity of the individual and their self-confidence and flexibility that enhance their tendency towards optimism. Resilience as seen by (Sübert, 1970) reflects the existence of life purposefulness that would raise our capacity of solving problems and determining objectives and priorities when we are faced with traumas or major changes in our life, such as facing sudden diseases, or war situations, or national crisis, or natural or man- made disasters that would

negatively affect socio-economic life and its related activities. Therefore using psychology of resilience would help to enhance the survival of individuals, organisations and communities in the fight against shock events. With this resilience we can manage to mitigate challenges and face risks and even transform extreme difficulties into opportunities of stronger and more balanced compared to previous situations.

With this resilience defined clearly we can direct our reactions to risks and give organisations and communities the opportunity to avoid potential losses. With resilience defined, the behavioural components become the main step to manage passively disasters and shocks and sustain the business as usual. Therefore Daniel (2003) defined resilience as the ability to know where, how and when to use energies to improve things for yourself and how to recruit help in that endeavor. Resilience is the ability to be successful both personally and professionally, in the midst of a high-pressured, fast-paced and continuously changing environment

Resilience is thought then as ineffable quality that allows some people to be knocked down by life and come back stronger than ever. Rather than letting failure overcome them and drain their resolve, they find a way to rise from the ashes. Therefore, Merriam-Webster dictionary defines resilience as an ability to recover from, or adjust easily, to misfortune or change. While MSN Encarta defines resilience as the speedy recovery from problems with the ability to recover quickly from setbacks. The elasticity that resilience bring in enhances the ability of the organisation or the community to spring back quickly into a new shape that bring in development and unforeseen opportunities even after being scratched, bent, stretched, or even deformed.

Resilience Story

Shivani Siroya establish its resilience initiative (InVenture) when she found that there are problems in microfinance, the business of loaning small amounts to low-income clients in developing countries. Siroya observed that financial companies lacks a way to evaluate business performance, making it difficult for micro-loan recipients to obtain further loans and build their businesses.

She searched for a resilience solution that would be like an accounting tool for micro-borrowers to keep track of their income and expenses and a credit scoring tool that uses this data to help lenders assess borrower risk.

Siroya piloted her product design on micro-borrowers of investment banking and UN Population Fund and evaluated whether the micro-credit had improved the quality of life of these borrowers. What struck Siroya was the lack of resilient private investment to help the micro borrowers grow and the lack of record-keeping tools to help them run their businesses.

Siroya and her team found that many social problems can be solved by the power of phone calls and text messaging. So in July 2011, InSight was developed as an accounting tool that tracks and analyzes the income and expenses of micro-business owners through SMS (short message services), enabling both borrowers and lenders to see how a business is doing. Borrowers, who undergo a training session, put their income and expenses into the system, via SMS or phone, daily. After a month, that information is processed into credit scores that help investors assess how risky each borrower is. Lenders can have their existing and/or potential borrowers adopt the tool and then log into InVision to see borrower spending patterns and credit scores. That information enables lenders to confidently lend to and help grow the businesses of micro-borrowers.

Micro-entrepreneurs at InSight training (Courtesy of InVenture)

InSight was developed in seven Indian languages, and in early 2013 we released a voice version of the software that allows users to input their data over the phone through the keypad, making it free for them and easier for individuals who are unaccustomed to using SMS.

Globally, we have about 8,000 InSight users, who use our technology for free. Our revenues come from providing individual credit scores to partner financial institutions, of which we have five, and from licensing the technology to partners. We plan to license it to more institutions with cultural competency in places like Kenya, South Africa and Haiti.

Biggest InSight challenge is getting users to share their data and get in the habit of daily accounting through their mobile phones. Resilient solution for this problem through staying close to local NGOs and community leaders and by making the product easier and more engaging.

Definition of Resilience Economy

Since most dictionaries define resilience in terms of the ability to recover quickly from the effect of an adverse incident, resilience economy (RE) is about the recovery enablers, tools, capacity of the economy and the socio-economy recovery. Hence, it is about the ability of RE resilire 'to leap back'.

In economic literature, the term RE has been used in at least three senses relating to the ability (a) to recover quickly from a shock; (b) to withstand the effect of a shock; and (c) to avoid the shock, and altogether. Therefore, we can still define resilience economy as the economy that have the ability to recover from or adjust to the negative impacts or external shocks in a way that it would protect the socio-economy.

When we find that an economy that is full of factors that make some people or society more positive in attitudes, optimism with ability to regulate emotions, and see failures we start to see RE practices. Resilience economy focus the attention on building a capacity that would absorb negative conditions, integrate them in meaningful ways and move them forward.

With resilience economy we can develop societies that have the mindset to be ready with unique coping mechanisms. Mandela used resilience economy to build up clear focused goals that support positive response to negative socio-economic events with great flexibility.

If we target an economy that would have the ability to recover quickly we need it to be flexible and enabled to bounce back after being adversely affected by a shock. Therefore, part of RE definition is its capacity to manage sudden or chronic fiscal deficits or unexpected socio-economic outcomes.

Nevertheless RE can be considered as the ability to enhance the economy possesses discretionary policy tools which it can utilize to counteract the effects of negative shocks, such as a strong fiscal position, which would entail discretionary expenditure to contrast the effects of negative shocks.

RE would be also characterised the economy of shock absorption where the adverse effect of a shock could be absorbed or neutered toward negligible effect. It is about an economy where resilience occurs when mechanisms is needed to react to negative shocks. It is an economy that would usually work to obverse of economic vulnerability.

Resilience economy means that in case of property damage or market share loss we can still manage to deliver business in depending on the good relations with vendors. In case of regulatory compliance failures we need to increase the replacement, restoration, recovery cost and maintain the goodwill value.

Finally, RE can be seen also as the capacity of an economy to combat socio-economic issues as poverty, sudden unemployment due to unexpected crisis and this what makes it to be more resilient economy. Thus it is about the ability of the economic players to know where, how and when to use our energies to direct and improve things in order to achieve our endeavour.

Resilience Story

Philippines is one of the top countries in the world that needs a very dynamic resilience economy that mitigate environmental, economic, social and political risks. With the consistent instability causalities relevant to civil instability, climate change and frequent political tensions many of the Philippine populations still on or under poverty line. There are however different promising programs that are brought the civil society and also by the governments to enhance the daily lives and wellbeing to overcome the routine challenges.

Today the Philippines government takes disaster risk seriously and has devoted significant resources to build resilience capacity and reduce

population exposure and vulnerability. The Philippines enhanced its disaster preparedness using resilience management to support specifically vulnerable and helpless people. There are now many civic initiatives that help to develop access to means of protection. The projects tried to help the marginalized Pilipino to display a large array of knowledge, skills and resources which constitute useful capacities in time of hardship. Despite many communication challenges the government in collaboration with Philippines civic societies continues to spread resilient and able to overcome disasters recovery. Many research and studies also carried out to understand why disaster occurs and for those who wants to contribute to alleviate the current suffering, resulting from not being able to prevent, mitigate and prepare for disasters.

Resilience economy practices also cover the improvement of the existing of the flexible, multi-skilled Philippines labour force that are acting as an instrument of shock absorption, as negative external demand shocks affecting a particular sector of economic activity.

Why Resilience is Needed Today?

After the first waves of non-resilience in recent human history resembled by World War I and World War II, cold war started between East and West. As tensions cooled down hatred and revenge started by small nations. This type of blasts of what we believe to be pre-World War III made many countries try to capture more power in relevance to diversity and history.

Governments, civil and private sectors needs resilience economy since it would give them greater ability to influence with minimal resources and ensures the well-functioning of their socio-economies through increasing their shock absorption capacity.

Resilience economy is highly needed more than ever today due to the shrinkage of organisational life spans. While in 1958 the average life of the company was 61 years; by 1980 it had dropped to 25 years. Today as we are ready to enter the second decade of 21 century the average life of the organisation is becoming is dropping to be below 18 years.

Certainly the average life of organisations is less in developing countries than developed countries. In developing countries it doesn't reach in certain regions of the world it doesn't reach even 5-7 years. The reason for this shrinkage is the inability to absorb the shocks and failures. With resilience economy mindset and practices we can enhance the readiness of transformation which allow the organisation not just to survive the next disruptive challenge but also would develop its role to more stabilised socio-economy. With resilience we can enhance the organisations and societies readiness in relevance to instablised environment.

With resilience we can increase the impact on our livelihood. So, as a result of the challenges along with difficulties and rapid changes within our economy and society, we can strengthen our resilience capacity. With problem solving and overcoming challenges, resilience economy is a principle that identifies new resources that would help us to face imbalanced situations and bring in many hidden opportunities.

Resilience Story

Nelson Mandela became a world icon since with him South Africa and the world learned the meaning of resilience. By practicing resilience, Mandela who served as president of South Africa from 1994 to 1999, was the first ever president to be elected in a fully representative democratic election. Before being elected president, Mandela was a militant anti-apartheid activist, and the leader and co-founder of the armed wing of the African National Congress (ANC).

In 1962, Mandela was arrested and convicted and went on to serve 27 years in prison. Following his release from prison on 11 February 1990, Mandela led his party in the negotiations that led to the establishment of democracy in 1994. As president, he frequently gave priority to reconciliation, while introducing policies aimed. Mandela created a story of resilience that is going to stay as a reference and a legacy for many years and generations to come.

Analogy of Resilience with Water

Water is one of the most adaptable substances in the world. Apart from sustaining life, water flow resembles the common usage yet the persistence and resilience with the different obstacles and shapes. Water holds the secret to dealing with many of life's problems. Bruce Lee quoted to say "Adapt like water: Be like water; water has form and yet it has no form". It is the softest element on earth, yet it penetrates the hardest rock. It has no shape of its own, yet it can take any shape in which it is placed.

Resilience is like water, it has high adaptability, if you squeeze it fast, the water will flow out quickly and resilience would come to start the adaptation journey. If you squeeze it slowly, it will come out slowly. Water may seem to move in contradiction, even uphill, but it chooses any way open to it so that it may reach the sea. It may flow swiftly or slowly. In the world, there is nothing more submissive and weak than water.

Understand the resilience analogy with water help us to adapt to any situation without complaint. Due to its nature, it will take the shape and properties of its surroundings. Water can flow on and on and it will shed its sediments and return to its former state. This is the adaptability of water.

Like water being resilient means you have to use whatever you find around you to solve the problems at hand. If you are able to adapt to any situation you find yourself in and do whatever it takes to resolve the problem, you are more likely to succeed.

Based on the quality of water, i.e. resilience of water, we can overcome any obstacle it faces. Through patience and perseverance, water can wear down the hardest of rocks. It does so by finding anyway it can to get by the obstacles in its path.

Resilience as water has a goal. All water in rivers and seas flow towards the ocean. This is the destiny and goal of water. It is because of this goal that water flows on and on. It is not a matter of "if, only", but it is rather a matter of "when." With this clear goal in mind, water has the motivation to overcome all obstacles in its path to achieve its destiny. It is of vital

importance to keep clear goals in mind when we face a problem. Having clear goals give the water the resilience it needs to reach whatever it targets to reach.

The resilience like water make us accepts each situation. But this does not imply passive acceptance. If it has to get dirty, it will do so without complaint. If it has to flow a longer distance to get around an obstacle, it does so. Water will flow wherever it needs to flow to get to where it wants to go. Water accepts a situation so that it can focus on getting through it. It will do what it has to do to achieve its goal.

Resilience Example

Stephen Katsaros found that Kerosene lamps are expensive and harm people's health in parts of the world without access to electricity. So he worked on resilience economy driven solution that is simple, affordable solar-powered lights.

Stephen worked on making string lights solar, and came up with an idea for a solar lamp in the shape of a light bulb that could be suspended with a clip or set upright on a surface. Stephen resilience solution would address a markets where one in five humans lives without electricity and where many burn kerosene lamps at night as a result. The lamps are expensive and bad for human health and the environment. Stephen launched Nokero short for "no kerosene."

First, we had to make sure that what we had designed could be manufactured at a low price. We created a prototype to test and then looked for commercial partners—mainly master distributors and wholesalers with large networks of retailers—because they are much faster than governments and non-profit organizations at getting the product shipped and sold. In the end, 90% of the more than 500,000 units we have sold went to commercial partners who create viable approaches to distributing the lights. Container-sized orders have been sold to places like the non-profit organization Shelterbox and other NGOs, but those were slower and longer processes.

Through Nokero partners, product to farmers in Pakistan, midwives in Haiti, schoolchildren in Kenya, Rwanda, and Senegal, and fishermen in Ghana. We have never focused on one particular market, but India, Pakistan and Nigeria have the largest potential with about 70 million people each without electricity.

Review of Socio-Economic Needs in Emerging Economies

If we are going to talk about the coming resilience based economy we need to have a thorough reviews of Socio-Economic needs in developing and emerging economies. In this introductory part we would try to illustrate brief examples of what is happening to the socio-economies in different countries that we have experienced doing change to it and found that they need to be more economically resilient if they are exist without further catastrophes that are more due to failure of readiness.

Economic resilience was developed based on a framework that intends to merge the management of the risks of vulnerability and the economic science of sustainability. With resilience economy we identify the ways and manners of problem solving to issues related to increasing the capacity or recovering the negative effects of external shocks. In other words, deals with diminishing the probability of failure.

The self-dependence uniqueness of resilience economy (RE) is what brought us as researchers in inspiration economy to focus on it. RE focus on the returning or improving a specific situation using the intrinsic powers of the these economies, be it for countries or organisations. It is really a methodology for socio-economic renewal in a constructive way. Research shows that many developed, emerging or developing economies don't have enough capacity to return to the previous balance.

In order to enhance the organisational capacity that brings and sustain the balance we need to define the type of socio-economic programs that would enhance the response to both external or internal shocks. The measure

would be whether this capacity would be effective enough (i.e. causing recovery and stability) to return the organisation to its initial state or better with minimal resources.

Most of emerging economies are trying to differentiate their growth and development by differentiating their vulnerability to the external and internal factors. Therefore many leading or emerging countries today measures the ratio of resilience to vulnerability as this gauge their level of socio-economic competitiveness.

Based on the analysis of economic balances understanding, resilience economy raise the ability to adjust and change a system or organisational response (reaction) to sudden pressures, shocks and negative impacts, i.e. improve the adaptive capacity. The more this is guaranteed during the emergence of the economy the more countries can see sustained development.

Resilience Example

Béné et al (2012) shown how the three capacities, i.e. the absorptive, the adaptive and the transformative works in strengthening the business resilience role within our livelihood system. For example, a coastal community in Bangladesh may use its absorptive capacity to build barriers that will protect their resources against annual flooding. Bengalis use their adaptive skills to alter how they cultivate crops, bury the dead (vertically instead of horizontally) and collect drinking water in new ways that guard against the increasing salinity of groundwater associated with climate change. The Bengalis also shown to have built transformative capacity in the way they manage natural resources by managing to change their attitudes about the role and partnership of different community groups and therefore this lead to the success of Gramin Bank initiative.

Why Resilience Economy Matters?

Ovan (2015) did a survey about the importance of resilience to business. Resilience found to matter since it help the organisation to recover from setbacks, adapt well to change, and keep going in the face of adversity. Resilience economy even matters more since it addresses to many people what is happening in their own lives. With resilience we can mitigate the impact of tragedies or sudden crisis thus build the ability to manage change and the challenges of difficult economy.

The last two decades of positive psychology publications showed that happiness and resilience are very related. Resilience and resilience economy practices matters a lot today to maintain minimum level of happiness in our societies, especially as we started to see variety of life challenges where there are specific types of resilience that are needed to create better economies. For example, resilience help better economies to grow when challenged on matters of importance, or when we face challenges in our life journey, or when we are taken outside our comfort zone. Resilience therefore matter since we need to create more models and realised environments around different areas in a turbulent world that would show how deal with setbacks and successes and create positive learning experiences instead of more zone of conflicts. Creating such resilient models and environment requires that we break down social and bureaucratic barriers.

Resilience then matter since it is found it comes from organisations or type of work we do, the relationships we build and finally the self. Wellsprings of resilience are equally applicable to organizations confronting historic challenges. Resilience and resilience economy matters more than ever today since it would help organisations to face reality and make meaning of hardship instead of crying out in despair, and improvise solutions from thin air. Therefore, Allison (2011) seen that in the face of change and crisis the resources we need most is our resilience.

Thus resilience and resilience economy matters since we should be ready to work under pressure more and more today when budget cuts and different program would have sudden closures. When organisation or societies are

faced with sudden demand for workforce reductions and/or changes in administration requirements interest in resilience would really matters. It really matters to have the ability to bounce back with speed and elegance that would help to respond to new and ever-changing realities in our socio-economies (Reeves & Allison, 2010).

Resilience Story

There was a boy whom asked His father “how do wars arise?” The father replied, “World War I gives you an example. The war started when Germany attacked Belgium.” Here the mother interrupted him and said sharply: “Tell your son the truth. The war started when some people were killed ... “The father could not tolerate the mother’s intervention in this way, and he looked to the mother to force her to say,” He did not ask you but asked me, why do you answer him and interrupt me?”

The mother rebelled again, and hurried out of the room and closed the door violently, shook a shelf on the wall, and fell some precious pieces of art and broke some of them. A silence occurred. The son cut him off: “Now I know my father and mother how wars begin”.

I do not need an answer! The son said. And he gone away.

Yes, the child understood by his simple instinct that coexistence requires understanding of the human being to his fellow human being.

Evaluating the Resilient Mindset

Evaluation of the “mentality” of the mindset and the extent of its openness and renewal takes lots of different ways and shapes. Lots of research developed psychometrics that tried to do so over the years. However all of the measures over the years met at common points as they’ve seen that resilient mindset should be driven by, for example, how should we look at challenges, or how we deal with the problems around us? How do we deal with opportunities and challenges? How can we assess strengths and

weaknesses? How do we identify possible solutions? How do we change the spirit of leadership?

Resilient mind need to be exposed by practices of trying to discover (which would lead to persistence & perseverance). This journey start to tackle the blind spots which are the reason for rigid mentality. Studies now shows that blind spots can be both natural and artificial. Natural Blind Spots are spots which all of human beings are vulnerable to have or go through, however wise or experienced they are, but with different scale. These type of spots are dealt with acceptance, i.e. not always can be discovered or have to be discovered. Then we come across the artificial blind spots (i.e. due to complacency and/or unwilling to unlearn and then re-learn). The moment we start to see the blind spots, due mainly to 'learning by doing' or experiential experience, then the attitude and behaviour be it for individuals or organization or even communities start to change. The measure of this mindset change would be linked to the level of persistence we build.

Today most of individual, organisations and societies behaviours are linked with short gains. All the scarcity mindsets today are linked to evaluating the outcomes in terms of associated appealing gains or associated losses. Hence, we have to introduce resilience based economy in presence such mindset of gains. Gradually a resilience economy should help to shift the mindsets towards targeting pleasures than gains to occur in the future.

A resilience mindset would shift our societies towards being more value driven that would introduce better desired behaviour. Resilience economy mindset would break the large gains into multiple smaller gains. Studies shows that experiencing separate, smaller gains is often more pleasurable than experiencing them simultaneously as one large gain. This also found to change the associated behaviour.

Resilience driven mindset usually would emphasize losses to discourage specific behaviour. People dislike experiencing losses, especially in the present. When an option or outcome is framed in terms of its associated losses it becomes less appealing and people rarely stop to consider the associated gains.

Resilience Example

Redefining the Relationship Between the centre and the edge of any journey or intention is a very important process of thought for any resilient mindset. If resilience requires thinking differently about the role of the public sector as an enabler of networks, an important transition is about how technology transforms the practice of governance itself. In short, this transition involves a shift from centre-to-edge communication to a new dialogue model between the centre and the broadly distributed nodes at the “edge.” This could be applied for resilient community where the “centre” is the government and the “edge” by contrast, represents the network of people and civic and private organisations distributed throughout society. It represents those spaces and places where customer or citizen needs are first detected.

In (2011) Cisco brought in a white paper to link the successive waves of innovation and to be resilient for when it will give outcomes. Cisco mentioned by the “edge” being the citizen innovator’s garage, the laboratory, the computer guru’s home workstation, the front-line service delivery workers of a government agency, the local community meetings. Cisco considered basically, wherever people are in touch with highly local concerns and needs, have a willingness to invent and experiment, and are unwilling to wait for direction from the centre. Cisco in a world of broadly distributed transitions and risks, more of the insights, knowledge, and resources that governments and societies need to become more resilient are at the “edge” of systems and communities, not the centre.

Resilience and Optimism Capacity

Resilience economy need people and communities that strive for adaptability and flexibility. They understand that some things are beyond their control, and they choose their battles wisely. They cope well with change because they see it as part of life’s journey, and they embrace it rather than fight it.

Optimism plays a key part in that adaptability. It keeps people focused on what is going right in life rather than on the negative. It is also important to note that when we are optimistic and operating from a positive emotional state, we are more resourceful. We solve problems more effectively, and we have better access to our higher order thinking capacity.

With resilience economy practices we have the capacity to see opportunities and look for the chance to take action in change. On the flip side, when we are feeling negative, we are not resourceful at all because our focus shifts to everything that is going wrong.

Resilience Example

Cisco white paper (2011) confirmed that in face of uncertainty and change, failing to empower the innovative resilient communities at the edge results in less sustainability of this resilient spirit.

Attributes, engagement, autonomy and agility are resilience characteristics that a resilient community expected to have. Cisco team seen that as resilience grows, communities would respond to risk and opportunity and this increases the chances of creating more resilience economy. Trusting those at the edge (i.e. those away from the direct influence of governments and policy makers) reduces risk and increases confidence and capacity.

Rise of the Concept of Resilience Economy

The relationship between growth and development is what differentiate the concept of capital economy and resilience economy. employment is just one example of how a narrow definition of growth is not always consistent with understandings of a healthy and resilient economy.

Interest in the concept of 'resilience' has grown in recent years due to the convergence of thought on recent socio-economic, financial and environmental crises (Christopherson et al 2010). For example, the financial crash which followed by deep recession in 2007–2008 showed

the importance of a mechanism as resilience that would help to adapt to such sudden shocks and transform to better changes.

Martin et al (2013) have drawn out four impacts of resilience that made an important concept today. It is believed they are the same impacts that rise the resilience economy importance. With resilience mechanisms built into the organisation and society system we can maintain the elastically following a disturbance with the same function of development. Resilience ensures speed of recovery. As with resilience our ability to absorb shocks helps to maintain the stability of structure and function as mentioned in Martin team research. Finally having resilience leads to robustness where the capacity to maintain core system performance through adaptability of structure and function is maintained.

There we can summarise that resilience economy in analogy with resilience drawn from other fields as ecology and environment is based on three pillars: diversity, modularity and social capital.

If an organisation or a society have social capacity and its being modular it would have the ability to innovate. However in order for this organisation to sustain life it would need strong communication that collect the diversity and manage to overlap to bring value added results.

Therefore, Greenham et al (2013), seen resilience as 'dynamic adaptation'. Such simple definition in resilience economy establish its comprehensive capability and ensures its ability to create more responsible businesses. With this high reliability reflected by the spread of responsible business we would see outcomes that differentiate such economy, such as: positive spirit of economic initiatives, faster supply chain and efficient resource management and total people involvement practices that build strong business community.

The Centre for Local Economic Strategies (CLES) (2009) conceived economic resilience as inseparable from, and mutually supportive of, social and environmental resilience, in which the relationships between different actors and spheres are key. This given rise to call for policymaking that can transform the focus of the communities and organisation on realised economic development. Thus transforming the focused from traditional

‘hard’ economic interventions to more socio-economic interventions that focus on integration despite diversity.

The rise for resilience economy proven to be essential for health, wellbeing and life purposefulness. The rise of heterogeneity of national economies given rise to resilience economy since it help to enhance their vulnerability to economic shocks and business cycles.

With the escalation of disasters and lengthening of recessions, resilience economy started to take a main role in being part of a default economic performance plan. With RE practices countries, societies and organisation today mitigate the effect of the repetitions of shocks thus maintain all the resources of the economy from migrating. The presence of resilient economy ensure that benefit of disparities and economic divergence are optimised. In presence of resilience economy we would mitigate the effect of recessions so that no economic hysteresis due to loss of socio-economic opportunities.

Resilience Story

In 1604, a thinker in Italy, Fostos Sousini, came up to spread the principle of tolerance and dialogue, calling for every individual to be free to choose his belief. Sousini said: “Who are we to suffocate and extinguish the fire of the Holy Spirit in others? We are all brothers, none of us can control the souls of others. None of us know from others.”

The Church tried to fight Sussini ideas, but the sincere idea spread like the wind. No one could hold it. The spark from Italy ignited the whole of Europe. The principle of tolerance and dialogue spread after the destruction of most parts of Europe. Since then, Europe has learned the lesson well, and the peoples of Europe have known the importance of dialogue and acceptance of the other, especially after the high price paid by the people and the hellish tax of the wars that consumed the green and the land. Despite the conflict that continued openly or in disguise between the church and society until the 19th century, the call for a culture of dialogue continued until today to overcome the culture of cruelty and cancellation of the other.

The Ability of Economic Resilience

Many researchers helped the development of the resilience economy that we are collectively introducing in this book through understanding the economic and the socio-economical nurtured abilities that resilience bring in. Resilience economy practices help to recover or adjust the effects of adverse shocks to which it may be inherently exposed. Understanding this natured ability that resilience brings in helps to provide an explanation as to what are the secrets of vulnerable countries and their high levels of GDP per capita.

Most studies on economic vulnerability provide empirical evidence that small states, particularly island ones, tend to be more economically vulnerable than other groups of countries, due mostly to a high degree of economic openness and a high degree of export concentration (Briguglio, 1995 and 2003; Crowards, 2000; and Atkins et al, 2000).

The ability of resilience economy could be really tested with the exposure to exogenous shocks. Cordina (2004) shows that increased risk can adversely affect economic growth as the negative effects of downside shocks would be commensurately larger than those of positive shocks. The high degree of fluctuations in GDP and in export earnings is considered as one of the manifestations of such exposure (Atkins et al, 2000).

In (2011) the giant network company CISCO have produced an extensive report about the importance of resilience and its ability. The report “The Resilient Society Innovation, Productivity, and the Art and Practice of Connectedness” which was prepared by Simon et. al. was a CISCO white paper that warned that the world is likely to experience more shocks and stresses in the future, on scarcity and on other fronts, with increasing intensity.

The ability of economic resilience help to manage shocks and frequencies of crisis and capitalize on windows of opportunities that such crisis may offer. Therefore, it is expected that policymakers need to try to ensure that moments of sudden challenges or breakdown would lead to renewal, or discovery of opportunity rather than sudden collapse.

Resilience Example

Cisco (2011) white paper report defined the governments can play a great role in “connecting for resilience” by increasingly privileging those at the edge, i.e. the resilient, self-dependent initiators, innovators, entrepreneurs. The government being at the centre would be expected to act as an orchestrator, integrator, and governor of fair and inclusive process, balancing competing signals and demands to set strategic direction. It remains accountable for maintaining the public goods and in engaging the insights and expertise of the edge and specially from people and organizations without the power and authority.

By understanding the importance of resilience driven economy and mindset and in response to rising concerns about the deterioration of local aged-care services in south London, the Southwark local government came up with a circle initiative that explored and then discovered that the services provided to the elderly didn't have a problem; however, the problems were around the low resilience capacity in addressing the rising loneliness that came due to lack of participation in, and connection to, the communities in which these older people were living in. This understanding and ability to see the problem from the resilience capability of the community to address such a problem helped to improve the quality of life for a great and important sector of the community.

For more information on this case please:

<http://www.southwarkcircle.org.uk/>

The Demand for Resilience in Our Societies

Resilience is highly demanded for all types of societies and communities whatever their social status, their level of civilization and type of social fabric. However, resilience is highly needed for the mindset of the elite in the society, especially those who lead countries, design the socio-economic related services and activities, occupy social status in society, or those individuals responsible for the developing the community.

One of the main challenges to resilience in any society is the excessive workload that comes with suffering, or the constant demands that lead to uncertainty about the future. For example, resilient societies would have the ability to deal with mistakes without fear even in cases of lacking support. Studies of resilience shows that developed societies focuses on early youth empowerment in relevance to managing challenges, or setbacks and thus raising their self-sufficiency and capacity for discovering or even exploring seen or hidden opportunities.

Societies might suffer covariate shock which is reflected by the widespread infrequent events such as violent conflicts or sudden introduction of new technology. Therefore, resilience economy is highly needed in societies where the turbulent events affects death or loss of income generating activity which is called idiosyncratic shock.

As we have clear segregation between layers of the same society, communities need to be more resilient to absorb and recover from shocks, whilst positively adapting and transforming their structures and means for living in the face of long-term stresses, change and uncertainty. This means societies should be working on strengthening the capacity to absorb shocks, or adapting to reduce exposure to shocks, or transforming so that the shock no longer has an impact on the system.

The demands towards being more resilient society and socio-economy is increasing due to the rising trends of consistent failures and crisis in capital economy that came along with the rise of democratic economies that related to human capacity such as Knowledge Economy, Learning Economy and Behavioural Economics. The development of psychology is what brought behavioural economics and made to be appreciated by many researchers and practitioners that were worried about the rising dangers of scarcity based economy and mindset. I consider myself one of them where I have been for many years worried about programs, teachings and growth that is considered to be based on the formula of supply vs. demands.

Figure (1-1) shows that all of these four causalities raised the our interest and needs an economy based on intrinsic power economy we coined it to

be Inspiration Economy. With development of the deep analysis and action based research we've seen the presence of other two intrinsic power based economies that are needed and can further developed to address the needs of humanity today called: Youth Economy and Resilience Economy. These three economies are found to be driven by Capacity vs. Demands economy.

Figure (1-1) Evolution and rational demand for Resilience based economy.



Resilience more than ever today on demand due to the highly evolving needs for probability management during a negative consequence. The society need to be ready to the sudden event(s) which often negative impact on the vulnerability of a system and which represent significant negative (or positive) influences on living or the functioning of the state. Thus with resilience based societies we can avoid long term trends, thus avoids weakening of the potentials or increasing its vulnerability.

Resilience Story

After a long and hard day of work, a mother put food in front of the father on the table, but the bread was completely burnt. The father stretched out his hand to the piece of bread and smiled at his wife. He asked the son how was his day at school? When the son saw the father painting the butter on the burnt piece of bread then covering it jam and eating it he was astonished... then in few minutes later heard his mother apologizing to his father for burning the bread as she was baking it. The son says "I will not forget my father's response to my mother's

apology”... he said “my love: do not worry about it.” At a later time the son asked his father if he really likes eating a burnt bread? The father replied: “your mother worked hard today, she’s surely tired. So, if a piece of toast is too much burned it won’t hurt”.

The father went on saying “Life is full of missing things and there is whole flawless person. We are taught to learn how to accept deficiencies in some things and to accept the disadvantages of others. This is one of the most important things in building relationships and making them strong and sustainable”.

Role of Resilience in Business Capacity

Resilience have a great role in enhancing the business capacity of any entity since it help to manage the recovery from setbacks. With resilience we can create an environment in which both setbacks and successes are treated as positive learning experiences.

Resilience not create constructive environment but also breaks down social barriers and engage businesses in building even better capacities. University of Pennsylvania psychology professor Martin Seligman focused through repeated studies on role of “Building Resilience” in organisation and argued that resilient businesses can help employees become more resilient. Drawing on insights from a U.S. Army program that helped soldiers to bounce back after trauma, Penn’s Resiliency Program teaches students to think positively about setbacks so they don’t learn helplessness. With resilience the ability of the families, the communities and societies to absorb and recover from shocks, or transforming the structures for living in the face of long-term stresses, change and uncertainty is very high (Mitchell, 2013).

Businesses resilience can be boosted by strengthening three different types of capacities that make any organisation more absorptive, adaptive and transformative. For example, absorptive capacity is one of the ways to boost a business resilience where we would have higher ability to prepare for, mitigate or prevent negative impacts, using predetermined coping

responses in order to preserve and restore essential basic structures and functions. This includes coping mechanisms used during periods of shock. Examples of absorptive capacity include early harvest, taking children out of school, and delaying debt repayments.

Adaptive capacity is another example of business resilience that would boost the organisation ability to adjust, or to modify or to change its characteristics and actions to moderate potential future damage and to take advantage of opportunities, so that it can continue to function without major qualitative changes in function or structural identity. Examples of adaptive capacity include diversification of livelihoods, involvement of the private sector in delivering basic services, and introducing drought resistant seeds.

Transformative capacity is considered the third type of business resilience where it would increase the ability of the organisation to create a fundamentally new system so that the shock will no longer have any impact. Thus such capacity would be helpful for socio-economic instability where for i.e. introduction of conflict resolution mechanisms and urban planning measures would be and actions to stamp out corruption.

Resilience Example

CERN- a European Organization for Nuclear Research Project that managed to build a business capacity that collected many scientists around the world to operate the largest particle physics laboratory ever. CERN became the official United Nations Observer. CERN resilience helped to host more than 12,000 fellow researchers, professors, associates, apprentices as well as visiting scientists and engineers representing more than 600 universities and research facilities.

Because of the high resilience of this unique intellectual gathering CERN's main function is to provide the particle accelerators and other infrastructure needed for high-energy physics research. As a result of this high resilience, numerous experiments has been constructed at CERN through this international collaborations and many advancement to the world science and economy is expected more than ever before.

Governments Resilience

The issue of governments resilience is becoming more and more important due to the rising rapid socks and instability that inherently making these governments economically vulnerable. The question that we are trying to address here is that why a number of vulnerable governments and countries have managed to do well economically in spite of being highly exposed to external shocks. One of the main observations that we'll see here is that vulnerable governments should not be complacent in the face of their economic vulnerability, but should adopt transformation plans that would enable them to improve their capacity to cope with external shocks.

Many countries tried to raise their resilience capacity through enhancing their human capital competencies. Lately governments started even to take care about integration of the indigenous into the different community channels in order to enhance the country's resilience safety net. New Zealand, Canada and Australia are just of the well-known example. Other countries have managed to enhance the role of social support groups to help manage the challenges of services. Many government resilience initiatives started with providing free education, decentralising the healthcare system, improving the natural capital, moving population to secure areas, strengthening the vaccination program, reforestation, setting and securing national boundaries in order to enhance the country resilience.

Many countries, governments societies, organisations go to great extent to avoid losses. However, the further they go in practice the more loss would occur and thus the more they would tend to discount the importance of being resilience. Government resilience therefore starts with strengthening community participation in planning processes, or through introducing new innovation or development of improved management practices or promoting civic education, or with change management program. Once the government become truly resilient, practices of more transparency would be practiced as part of the local initiatives.

In 2010 UK government managed to set out a resilience strategy for dealing with national energy emergencies. While the threat of short-term shocks

is primarily a national issue, and relates strongly to national security, local economies are often dependent on particular industries or assets which themselves rely on natural resources in order to function – such as refineries or ports that are designed specifically to process biomass, oil or natural gas. Understanding the threats to these industries is therefore necessary to build local economic resilience, and to play a part in responding to the need to reduce dependency globally.

Thus government resilience can be clear in the way government-provided services influenced by its ability to fund reconstruction and to reallocate budget resources from public services; this will depend on the public sector vulnerability to disasters (Aakre et al., 2010; Mechler et al., 2006). Government resilience helps in downsizing government, improving its legal structure. For the purposes of the microeconomic efficiency the government should enhance its capacity in freedom to trade, besides maintaining the most efficient government.

These are chosen on the basis of their relevance to the resilience concept with regard to market efficiency. For example government consumption as a percentage of total consumption would be considered as part of resilient government. RE governments subsidies and transfers percentage of GDP and share investment account by public entities.

The share of government in the economy through consumption, investment and subsidies is considered to have a crowding-out effect on private sector thereby reducing the degree of autonomous resilience.

Resilience Story

The father asked his young son to come together to the garden to sprinkle some seeds of flowers and plant some “seedlings” in the garden of their new home. And the son said to his father, “there are still some herbs in the earth, even though we have purified them of all grass and flora! “We uprooted the grass as much as possible,” said the father. “As long as the land is not cultivated, the grass will appear again and again. And the son said, What shall we do? The father said: If we plant the earth and

show plants and shows some grass with it, try to uproot it again, and with time the plants sweep the grass until it hardly shows again. Thus, we take away the sadness of our lives.

This resilience concept also applies to our socio-economic life where we are expected to fill our lives with beautiful works and spirituality and reduce the negatives in waiting while trying to uproot the sadness in our lives. We can start with the positives of doing good and practicing good life. Thus sorrow gradually turns into a source of happiness and joy.

Resilience & Inspiration Economy

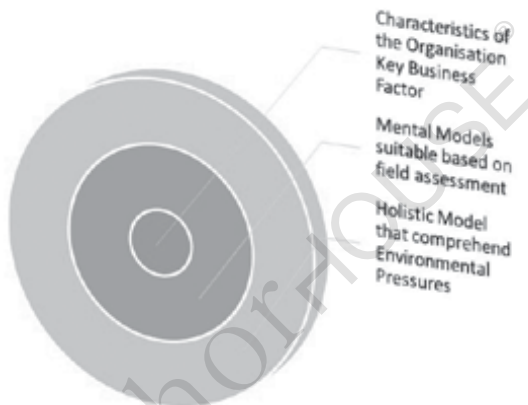
With the spread of such Inspiration Engineering practices, the ambition is to see the world to be a resource free that survive and thrive on human intrinsic powers and then less in other extrinsic resources. With the repetition of different inspiration engineering and labs in recent years, it became clear that inspiration currency is highly linked to resilience. Inspiration Engineering is a powerful tool that builds confidence in our societies and in our abilities to create better legacies that can influence both societies resilience and its economic status.

Inspiration economy enhances economic democracy and socioeconomic impact thus shifting decision-making power towards people rather just decision makers. With inspiration we can minimise the results in economic crises characterized by deficiency of effective demand, as society is unable to earn enough income to purchase its output production.

During inspiration-resilience economy balance the rising demands and complexity is faced by more capacity development. i.e. capacities for pensions and benefits are paid, passports are issued, traffic systems are managed, schools and hospitals teach children and treat patients, criminals are apprehended, and justice, more or less, gets dispensed. Therefore, it could be confidently said that inspiration is about resilience and creating sustainability, through observation and abundant and vibrant mindset we can create key business factors (KBFs), as shown in Figure (1-2). Once

the layer of inspirations in Figure (1-2) starts to affect the mental models through field assessment and implementation; socio-economic focus starts to move towards more of abundance thinking where we starts to see the world as being full of opportunities and alternatives. This paradigm shift help us to start to eliminate scarcity thinking thus allowing us to see opportunities inside different problems and challenges. This establish resilience thinking.

Figure (1-2) Layers of Inspiration Holistic and Mental Models that help establish resilient mindset



With inspiration mindset we shift from scarcity thinking that results in socio-economic imbalances to well established economic opportunity. An inspired mindset would have an abundant thinking where it would assume and believe that all parties have the right to exist, to have legitimate interests to negotiate to enhance relationships. An inspired mindset would be always proactive to propose solutions that are more durable and build up mutual gains to achieve positive results based on influencing with minimal resources.

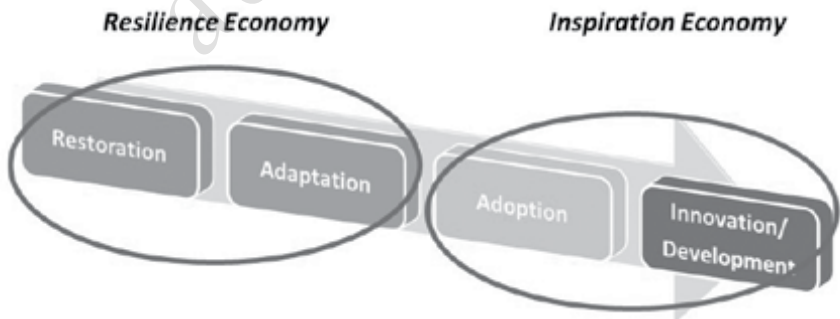
Resilience economy coincides with inspiration economy since they both help to build up assumptions and beliefs which help to focus on issues underlying interests and focus on mutual interests that judge options with objective criteria. For example, an inspiring organisations during the period of disruption and wrenching transition raise their capacity for “bouncing

back” from the last unexpected shock, emergency, or catastrophe and “bouncing forward” to anticipate, prepare for and avoid the worst of the next disruption. This inspiration during a resilience driven economy help to have both higher productivity (doing things better) and higher innovation (doing better things). Both productivity and innovation can be reached based on the art and practice of connectedness.

Studies shows more today that our human mindset need to appreciation the power of its own capacities. Once we realise our capacities we can enhance our power of honesty and communication. If we manage to expose and optimise the utilisation of our power of communication, we become more focused, eager to learn and more resilient. In this way, our power of observation develops. This also helps us to be more willing to change and thus have a sense of knowledge sharing that supports the use of the power of common sense.

Inspiration economy and resilience economy complement each other. In resilience economy we establish restoration and adaptation, while inspiration economy is about adoption and innovation development as shown in Figure (1-3).

Figure (1-3) Holistic Compliment between Resilience and Inspiration Economy.



The reverse thinking of trying to restore the mindset helps to shift from ‘Push-thinking’ to ‘Pull-thinking’ where we will be more selective about where we start our adaptation journey. This resilience created in our

mindset, helps us to create the necessary adaptation to challenge the environment, thus increasing our capacity for innovation and developing the major changes needed. This is the difference between a 'Pull-thinking' mindset and a 'Push-thinking' one. Before dealing with a problem in steps to make it more specific or even rushing to solve it we always make sure we look at it from different perspectives. Looking at a problem with different eyes improves our capacity to see opportunities; this leads us to greater insight.

With resilience we can deal with social problems in order to enhance the frequency of change and development. With inspiration existing problems are more realised and imagined. So it is believed that through inspiration social problems can be addressed.

RE Case Study- Resilience of Deseret News

Deseret News seen an early drop in sales and advertisement revenue till they reached their deep loss in 2008. The waves of change that the internet websites brought made *Deseret News* to shift towards resilience economy practices. Deseret News that was established in 1850 in Salt Lake City, USA was following for 150 years a traditional newspaper model. For a monthly fee, subscribers received on their doorsteps a daily *Deseret Newspaper* filled with articles on a wide range of subjects—local and national news, arts, sports, entertainment, and more. Local advertisers paid to reach this audience through display ads, classifieds, and separate coupon inserts. Google's search-term advertising and the free news websites like the Huffington Post, smart-phones, and social media sites even made matter worse for Desert News. All of these challenges started to divert the readers' time and attention, while drying up subscription income. Since advertising prices are pegged to circulation, declining readership hit all revenue streams at once. From 2008 to 2010, the Deseret News lost nearly 30% of its print display-ad revenues and an eye-popping 70% of print classified revenues.

The same forces were at work throughout the industry, as more than a dozen big-city newspapers closed their doors. The Rocky Mountain News, founded just nine years after the Deseret News in Denver, was shuttered by its parent, E.W. Scripps, in 2009. That was the year that Gilbert, a former Harvard Business School professor who had done research on market disruptions, came to the Deseret organization.

Dire as the situation was, it wasn't hopeless. An assault on a business model doesn't mean it's entirely worthless. If the existing model could be adjusted to become self-sustaining, while innovative ways could be found to exploit the opportunities in the new digital landscape, the Deseret News could get back on course. That's how the members of the company's leadership team saw it when they launched two distinct efforts. On the first floor of the Salt Lake City headquarters, they set out to re-conceive the print operation. On the fifth floor they set up a new organization, Deseret Digital Media, to take over the company's websites and focus exclusively on web publishing.

This was not a silver bullet. Costs still had to be cut if the daily paper was to survive. But which costs? And by how much? To avoid destructive across-the-board reductions, the management team instituted something it calls "story cost accounting." It calculated the cost of producing each story by multiplying the time it took the author to write the piece by his or her hourly compensation, including benefits. With this measure, everyone saw how expensive it was to produce commodity news that competitors could do just as well. Guided by the numbers, the leadership cut the overall costs of the print business by 42%. To remain viable, the Deseret News laid off 57 full-time and 28 part-time staffers in August 2010. But as fewer resources were devoted to sports and routine news, more were invested to produce in-depth and investigative journalism in the six areas of editorial emphasis. By 2012 the rollout of its national weekly publication had doubled the company's total print circulation—from approximately 75,000 to more than 150,000—and generated enough advertising revenue to turn the Deseret News into one of the nation's fastest-growing print newspapers. And even as the repositioned Deseret News was refocusing its

print content and lining up national advertisers on the first floor, up on the fifth floor publisher Christopher M. Lee was building Deseret Digital, which exploited online opportunities beyond merely repurposing the print newspaper. While the Deseret News moved toward a lower-volume, higher-margin model, Deseret Digital went in the opposite direction, establishing a lower-cost operation that could take advantage of the higher-volume but lower-margin opportunities the internet made possible.

Like the Huffington Post, TheAtlantic.com, and Forbes.com, Deseret Digital mixed a small number of staff-reported pieces with crowd-sourced material from dozens of outside contributors, producing content at a small fraction of what it cost on the print side. The digital offerings built on the company's core brand, focusing on the same six key subjects but often in ways that had no analogue in print. Only online content, like curated selections of stories from other media, blogs, contributor networks, and interactive forums, became critical to driving overall site traffic. So did original new products. As an alternative to traditional film review and rating systems, for instance, the digital editors created a family media guide called Ok.com, to which readers contribute movie appraisals. Through syndication, this unique content has brought in a new revenue stream.

It took three years the Deseret News to become one of the fastest-growing print publications in the country, Deseret Digital roughly tripled its small starting revenue base as a collection of websites. Revenues from the disruptive business are now about a quarter of those of the legacy media division (which also includes radio and television stations owned by the parent company).

From 2008 to 2010, the Desert News lost nearly 30% of its display-ad and 70% of its classified revenues, as internet start-ups assaulted its advertising and subscriber bases. Additional revenues have come from auctions, online deals similar to Groupon's, demographic and behaviourally targeted advertising, search engine marketing, and business directory listings. A non-traditional sales channel was created to capture and manage those revenue streams, which required a telesales staff and

people who could build a network that allowed advertisers to place ads directly on the site. Operations were organized to address the fact that most online revenues come in post-publication, as advertisers pay per click or per customer lead, unlike what happens on the print side, where subscribers pay in advance.

A leaner local print newspaper providing in-depth coverage of issues related to families and faith, supplemented with a similarly focused weekly aimed at a national audience, which can sell higher-margin national ads. This made the company remodel its services as a digital company with collection of websites that capture the lower-margin, higher volume opportunities that the greater reach of the internet makes possible. Desert News shared resources as the brand, editorial content, marketing resources and demographic and behavioural data about subscribers and site visitors.

From 2008 to 2012, combined daily. Weekly print circulation doubled, generating enough and revenue to turn the Deseret News into one of the nation's fastest-growing print newspapers. Deseret Digital now represents about a quarter of total corporate revenues.

CHAPTER TWO

RE AND SOCIO-ECONOMY

Social Organization and RE

Some scholars have tried to link social disintegration with changes, transformations or developments within a changing society. This attempt of building a relation on the basis that change is usually followed by vibration in some of the existing society, unless this change is governed and regulated. Therefore, we believe that resilience economy is totally linked to social disorganisation.

Any society is usually built on an organized based social control tools that help to build the minimum cohesion and organisation with it. Changes in any social organisation whether in its construction, or in one of its components will lead to disintegration. Therefore resilience economy practices is needed during any social disintegration to avoid any suffering of individuals or communities. Through RE we would avoid achieving stagnation.

If resilience practices are not available the available inefficiency in social structure would fail to identify the interrelated social roles. The failure to define social roles efficiently leads to conflicts within society, resulting in more social disintegration of groups and members of society.

The presence of resilience economy practices then help to build up social norms that would build a degree of balance of social structure. For example the presence of resilience economy practices would help to build pattern of family cooperation with schools, or through overcoming political

corruption, or managing to live in a community with high crime rate. Also, the presence of RE help to manage the communities of high rates of unemployment along with what follows as spread of criminal behaviour, drug addiction and other anomalies.

In economic democracy social organisation means building a socio-economy that fully involves and engage humans. Studies shows that more we have a total people involvement (called for short TPI) (i.e. asking their opinions and needs) during planning stage the more we can start to see outcomes of planning that are towards human equality and partnerships. However, when we increase this level of involvement and move it towards total people engagement (called TPE) through having the people design, plan and execute programs along with the decision makers then we can enhance the spirit of resilience and control the evil side of capitalism.

When we manage to create practices that spread TPI and TPE with the working class, they would come automatically a medium for effective social transformation that would change based on workplace organization and better community mobilisations.

With TPI and TPE transformation of capitalism into an economic democracy module as knowledge economy, inspiration economy and/or resilience economy would have much higher possibility to occur. Through gains and reforms that realise the social organisation through means as TPI and TPE we improve the resilience behaviour and the socio-economic living conditions while shifting the paradigm towards the holistic wealth that humans own. This create an abundant mindset that sees the world not just socio-political economic value, but one with profound socio-economic implications which need to be integrated in the process of factual decision making.

Resilience Story

The story and journey of thought and principles of resilience and coexistence is the story of constant struggle between good and evil in the human soul. Humans have lost lots of socio-economic chances

towards positive change due to their distracted focus of trying to cancel each other. This case has been repeated since the creation of mankind in the form of Cain and Abel.

The story tells us as most of the religions reveals that the conflict of coexistence and acceptance started since the beginning of human creation, as Eve was giving birth to one son and a daughter. In the following abdominal son and a daughter. It is said that Cain wanted Abel's wife for himself. Adam ordered them to offer a sacrifice. Each offered a sacrifice, so God accepted Abel and did not accept Cain.

Both Cain and Abel provided charity to God, God accepted the charity of Abel; for his sincerity and did not accept the charity of Cain; for his ill will and lack of piety, Cain said - for envy - to his brother Abel: And here began the conflict of coexistence ... only because of accepting the charity of his brother, and refused to accept his charity decided to cancel his brother. Abel's response (which is the response of humanity to every source of evil) (but accept God from the righteous) ... thus advising him to reconsider and reform the intention to live.

But Abel's resilience made him repeatedly remind his Cain of the brotherhood and tolerance required. The Abel said to his brother: (If you stretched out your hand to kill me, I am not going to do the same as I fear the Lord of the World. Abel continued to extend his hand with a sincere and patient heart, in anticipation of acceptance of his brother to his repeated offers. Cain did not listen to the advice of his brother and committed the of crime of killing his brother.

However, the attempt to cancel the other at this critical stage in the beginning of humanity did not stop at this point. The murderous Cain was not satisfied with this crime, but left his brother lying in the open, exposed to the monsters. But God wanted us to learn resilience as it is built the logic of the universe. God sent a Crow that began digging a hole in the earth to bury the body of Abel.

The final event totally changed the story and created lesson for every nation and society. An animal coexisted with a dead human, while Cain failed to bury his brother. When Cain seen this ... he start to wake up and blame himself for what he did. This story shows how lessons of resilience can give us an insight to come back of the right path again.

Theory of Social Change and RE

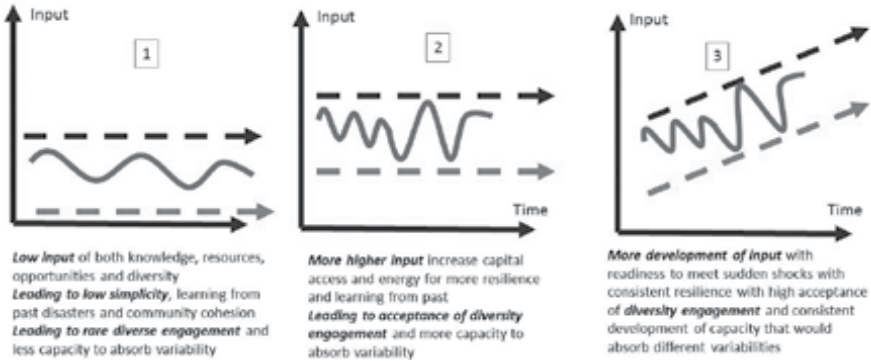
Some sociologists have adopted the idea that social change is the primary cause of social problems. While some said that the pace of change is behind the social problems, others said that the difference in the rate of change for different parts of society is the cause of the problems.

When resilience close the cultural gap it means to preserve traditions, customs and introduce a relevance to new set of dominant culture. In case RE is not present, the cultural gap occurs where the balance in the speed of growth between the elements of culture is disrupted. With non-availability of resilience each element in the society changes at a different velocity from the other.

Development of resilience can be reflected in the waves of social change associated with it. Figure (2-1) shows how the social resilience waves develops overtime. Low input as shown in the first part of the figure leads to low knowledge, resources, opportunities and diversity which leads to low simplicity, learning from past disasters and community cohesion. This also leads to rare diverse engagement and less capacity to absorb variability. This is where organisations or societies keep missing real opportunities of development.

Thee higher input as shown in the second part of the figure (2-1) leads to increase in capital access and energy with more resilience and learning from past. This leads to acceptance of diversity engagement and more capacity to absorb variability. Finally when we reach more development of input as shown in third part of the figure we would have more readiness to meet sudden shocks with consistent resilience with high acceptance of diversity engagement and consistent development of capacity that would absorb different variabilities.

Figure (2-1) Development of Resilience Waves of Social Change



In order to create a social change towards a resilience based economy we need to take into consideration different socio-economic facts. The first fact is about the autonomy of human resources accountability towards the organisations deliverables. We believe companies as Google used this fact and managed to come with a unique productivity model that is democratically controlled by its human capital. The second fact is that we need to encourage many social for profit organisations that support the role of the civic involvement in the socio-economy. This should help develop social control investments and funds are returned through public investment institutes to economic development cycle again. This should help the development of a third criteria where organisations would interact together and with consumers in an environment and prices largely determined not only by the forces of (supply and demand), but also by (capacity and demand).

Resilience Story

Our story today is about the boxing legend Mohammed Ali Clay, who has been in the ordeal of Alzheimer's disease for more than 20 years now. But the life of Mohammed Ali Clay been all about challenges, trials and tribulations that showed to emerge victorious again. Mohammed Ali Clay (born in 1942) is the only boxer to win the World Heavyweight Championship three times in his 20 years of boxing. In 1999 Mohammed Ali was crowned the "Athlete of the Century". From the judgment we

can say that Ali, learned from adversity. Ali lived and practiced resilience thinking and therefore he repeatedly said, “There are things ... more pleasant than beating people.” Ali used also to say about his success, “a man who has no imagination does not have wings.” “Your service to others is the rent you pay for hosting you on the ground”.

Ali resilience comes from learning from defeat, therefore he believed that humans can a model of resilience and used to say “If they can make penicillin from rotten bread, they can definitely make something out of you.” His resilience mindset used to make him say wisdoms ... we recall here “A man who sees the world in his 50s as he saw it at the age of 20, is a man who has wasted thirty years of his life.”

Role of the community in RE

Communities play a huge role in fostering resilience. The clearest sign of a cohesive and supportive community is the presence of social organizations that provide healthy human development. Services of such development usually maintained in good communication model between the resilient organisations. Resilient community members would usually deal with challenges through proactive appreciative enquiry, i.e. seeing the positives in problems. In some communities interventions for dealing with pre-crisis would be based on emotional intelligence to foster resilience among the community again. The community leaders would face sudden stress and adversity, especially that of repetitive nature, by raising the community capacity to adapt regardless whether the outcome would be positive or negative.

While communities in capitalism are characterized to be a source of productive resources run by private ownership, communities in RE model are expected to focus on productive resources that enhances the harmony and consistently involve people to maintain a resilient mindset. Therefore, the more we build models that enhances the community involvement in creating more resilience to the workplace and the ownership of capital, the more we would be replacing the market with some form of resilience planning that addresses the community needs.

Examples of Resilience

Studies shows that organisations can be more socio-economically ready by starting to react positively and selectively when phone services does not work. Or even when main utility companies blackout suddenly, or when our banks are broken due to inability to collect revenues. Such organisations can build societies that are more resilient when they loss even more essential services such as schools, hospitals and police services.

Role of the family in RE

Families foster resilience economy practice through directing the family members behaviour and encouraging their participation in positive social change. With parental resilience, the capacity of parents to deliver a competent resilient family despite presence of risk factors has proven to be very important for building characteristics that appreciate the quality of life and society members that believe in their role towards the community.

Even if family goes through a divorce which eventually produces direct and indirect stress, the availability of resilience based social support from the community can reduce the negative impact of stress and yield positive socio-economic outcomes. Same would apply when the family would awake on the death of one of its family members. The community and its resilience mechanism would be the source of both recovery and of maintaining a stable equilibrium which is conducive to bring back balance and harmony. In order to achieve a resilience economy families must learn to manage family disturbances in socio-economies caused by different distortions. Resilience in family relationships helps to reorganize the changing patterns of functioning thus to adapt to their new situation. Exhibiting resilience in the wake of family trauma can successfully traverse the bereavement process without long-term negative consequences.

One of the healthiest behaviours displayed by resilient family businesses in the wake of the death business owner is patience in conducting open family dialogue. Sharing the experiences of the business can promote

immediate and long-term adaptation to the recent loss of the owner, or at least gradually. Empathy is a crucial component in such family economic condition because it allows the family members to understand other positions, tolerate conflict, and be ready to manage the differences that may arise.

Examples of Resilience

Resilience is about the capability of systems and individuals to cope with significant adversity or risk. When natural disasters and wars rip apart societies, and as large-scale modernisation projects, urbanization, and transnational migration bring about sudden dislocations, the endurance of cultural beliefs, values, practices, knowledge and their transmission across generations have become of a significant concern. Therefore, projects carried out by UNESCO in Haiti, for example, have found that the vibrant local culture plays an important part in rebuilding a sense of community after disasters. This sense of community is considered to be the key asset during the difficult process of rebuilding. But culture is also considered to be important resource in reducing disaster risks, before the associated hazards occurs.

Cases from Italy socio-economic resilience confirm that a well maintained historic environment, including built heritage and cultural landscapes are likely to be very resilient to natural phenomena such as earthquakes or extreme weather events, because it incorporates traditional knowledge accumulated over centuries of adaptation to the environment. In 2009, a great number of traditional buildings managed to stand a terrible earthquake in Kashmir, saving the lives of their inhabitants, while conversely, reinforced concrete buildings which were badly constructed collapsed completely in the same affected areas, killing everyone inside.

When integrated into modern disaster risk management schemes, Italy disaster management response teams have proven to be efficient and cost-effective in mitigating both economic and environmental risks and reduce the Italian communities vulnerability.

Consensus in Decision Making & RE

Consensus is a decision which all members of a group can agree upon. The decision may not be everyone's first choice, but a decision where everyone involved can live with. This is the basis of resilience based economy where we need a conducive environment that leads to a productive enterprise that is controlled by consensus decisions made.

Through consensus the human capital of the organisation would be more accountable for effectively operating the organisation or the community, the discipline, the production techniques and the nature, price, and distribution of such products/services.

In resilience based economy decisions concerning solving problems requires authority delegation and democratic representation. While in a market based economy the cooperative business form suffers from several strategic challenges when operating independently. With resilience economy practices we can establish an ecosystem of several worker cooperatives and support organisations that can create an infrastructure that leads to sustained growth and expansion. With consensus the organisation can always find and agree to work with partners on solutions that doesn't compromise strong convictions or needs. With consensus practices in decision making we can build group unity through maximising group inputs, thus achieving commitment and satisfaction while improving relationships. Such practices establish more resilient culture.

Examples of Resilience

Greater Manchester have been a reference for being one of the models for the most resilient cities. Manchester demonstrates an understanding of an economy that targets to create relationships with neighbouring areas.

The great harmony in the relationship between Greater Manchester and its surrounding areas, such as Cheshire, Derbyshire and Lancashire, and its access to other major conurbations such as Merseyside, Leeds and Sheffield city regions positioned at the heart of the North, along the axes of the main national motorway corridors and key railway connections.

Greater Manchester's productivity and prosperity is intimately connected with the wider economic growth potential of the North. GMLEP's plan demonstrates an integration of economic policymaking across key areas – transport, housing, skills, R&D, planning, energy – and is clear that a place-based approach will be central to the delivery of its plans. GMLEP's embedded governance to deliver devolved responsibilities already agreed with government in respect of economic development of the city region by aligning and streamlining the Manchester 'Family' of organisations with Manchester Strategy.

Resilience Economy & Scarcity Management

Economics is a science that focus on scarcity management since it manage the human, organisations and society behaviour in relation to certain ends and scarce resources which can have alternative uses. When the organisation for example have abundance in resources, or have alternative uses of its available resources, then it shouldn't claim that it an economic problem.

In today capital economy competitiveness definitions conditions of scarcity are maintained by corporate structures that confine abundance to an exclusively entitled minority. Therefore, scientists believe that in reality any socio-economic imbalance comes not from failure to manage the scarce resources, but from mismanagement of virtually unlimited abundance and prosperity.

The American businessman Edward Kellogg (1790–1858) supports this perspective in his 1849 book, *Labor and Other Capital*, where he states: Money power is not only the most governing and influential, but it is also the most unjust and deceitful of all earthly powers. It entails upon millions excessive toil, poverty and want, while it keeps them ignorant of the cause of their sufferings; for, with their tacit consent, it silently transfers a large share of their earnings into the hands of others, who have never lifted a finger to perform any productive labor.

While Kellogg considers these functions a public wrong, we believe that it is all about failing to apply the basic practices of socio-economic resilience.

As Kellogg believed we are accountable to find and implement a remedy this bias in humans today towards only materialistic money, as we are not resilient enough to find do so we would be monopolised.

Therefore many scientist believe that if we manage to have a resilient economy that avoid conflict is between human resources and the monopoly that forbids those human resources to employ themselves we can have a flourished and a vibrant socio-economy. This constrain of monopoly if applied to any other resources other than human can help to push our economy towards being more resilient.

In study that was carried by Watson Wyatt in 1999, 30% of the 405 public companies surveyed in USA believe that well-managed workforce can add up a great differentiation to the organisation market value. Therefore, employee satisfaction and growth are considered to be key prerequisites for organisation productivity and continuous learning it is a resilience driver that strengthen cultural cohesion and maintain the benefits of its diversity. Organisations whom appreciate such diversity alienate themselves from scarcity mindset.

If the organisations build resilient mindsets and an economy that focus on self-renewal and monopolised by the capitalists who usually want to turn it to be so 'rare and scarce commodity', it would have much higher returns on investment on the long run. This example applies to many other things that creates because of scarcity mindset and practices problems due prices that doesn't match real cost, but match the monopolistic capitalist mindset that made a commodity so scarce in order to manipulate those who want to use them. The more we have this ingrained in any community mindset the more we'll find it away from being resilient.

Studies show that humanity is increasing the difference between human resource-value and monopoly-value. This lead to raising the goods prices and the profits by intermediaries who might have not contributed anything to the real value. This type of gap and unjustified increase in goods prices destroys any potential for a realised resilience economy.

Resilience vs. Scarcity mindset and management can be seen in the way governments plan and execute cities planning and housing accommodations.

Social analysts generally agree that such planning affected the socio-economic conditions and the way how we see the concept of quality of life and wealth. Such scarcity management lead to a deficiency of effective demand to more important relevant to values and resilience.

We the fast development of the capital economy we see that people are working for long hours to try to earn and it became the lifestyle of the most developed countries and cities. Urban planner try today to reduce the pollution, noise and improve the social transportation while improving the public spaces and including the gardens and different social communication modules we can create better spirit of resilience.

In relevance to the discussion above, we can see more and more today is that resilience is relevant to space. For example, the more we have cities that spaces and facilities that have social interaction and social inclusion the more we'll are building the basis for resilience economy. Through socialisation in social interactive spaces we have knowledge sharing and more willingness to humanise our needs that capitalising it. Therefore, we claim today that any country, or government, or society, or even organisation can enhance its resilience economy drive by development of its urban space and even the way its designs offices and accommodation. The more we create socialisation space and activities the more we discover new opportunities for well-established resilience economy. Thus the more we'll avoid the scarcity behaviours and its consequences.

Examples of Resilience

Resilience economy in any society, community and/or organisation flourish only when the people feel safe and appreciated. People feel appreciated when they are empowered. Theoretical research on psychological empowerment has been appearing more recently as case studies in scholarly journals. The SPEARS methodology is one of those case studies that were published in the Journal of Inspiration Economy and which explain how a small catering company, Al Jazeera International Catering (AJIC), won many global awards. Thommy and Murthy (2016).

Empowerment is human resources resilience economy concept since it links individual and organisations strengths and competencies. The case of empowerment in AJIC is very similar to many cases to leading organizations in service industry. The strategic approaches followed AJIC managed to transform employees to performance excellence by benefiting from the process of transformation in a holistic way.

Employee empowerment helped AJIC on gaining sustainable competitive advantage through three main dimensions: employee performance, employee satisfaction and customer satisfaction.

Concept of Wealth in Resilience Economy

According to many analysts, deficiency of understanding wealth is the most fundamental economic problem. During deficiency the society or the organisation may not earn enough income to purchase its output.

Wealth in resilience based economy requires attention, interpretation and memory. With attention the organisation or the concerned community starts to see the beauty in any positive and negative experience. The give us different interpretation capacity where many challenges would be seen as a source of positive memory.

Wealth in resilience economy helps to enhance spirituality while experiencing a broadening positive emotions which make life larger than just our own self-interests. With this type of mindset we would have values as gratitude, love and transcendence.

In contrary with Capital economy, capitals of wealth in RE includes the portions of wealth devoted to producing more resilience not only more wealth. While the income of any individual might include proceeds from any combination of these three sources—land, labour, and capital as factors in economic models, in RE is more than this and includes how people work on producing resilience that would enhance the relations among the entities that constitute the economic structure.

In resilience economy “wealth” includes also health, happiness and social relationships. This measure applied to individuals, organisations and communities or even governments. So, in order to be economically resilient you need to understand genuine wealth that comes from both culture, well-being and understanding nature. Measuring psychological wealth helps to put things together in a way that would bring in satisfaction of human desires and having exchanging of values.

A capitalist society would see wealth as the components of means of production that are produced either directly by individuals or by corporations, where products are exchanged in a market that is to say goods and services are bought and sold at competitive prices. While resilience economy would be concerned about organisations and communities that broaden our understanding of wealth and establish a type of creativity that challenges the social capital towards acceptance and co-existence. In such economy wealth can be easily expanded by understanding our societal benefits, studying the causal direction through lab experiments, quasi-experiments. Part of wealth would be younger genes, volunteering, pro-peace attitudes and cooperative attitudes.

Understanding true wealth makes organisations and communities to be happy thus functions better. Therefore it very important that organisation always remember its goodwill value and measure it psychological wealth.

Robert Kennedy, in 1968 mentioned about the importance of thinking of wealth in the same way we are describing now. He said “Too much and for too long, we seemed to have surrendered personal excellence and community values in the mere accumulation of material things. Our Gross Nation Product... counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage.... Yet the gross national product does not allow for the health of our children, the quality of marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile”.

Resilience economy also focus on mitigating the risks of inequalities. Inequalities go well beyond income and wealth. On average in the 17 OECD countries for which data are available, households in the top 1% of the distribution own more wealth than households in the bottom 60% combined. In those same countries, wealth is much less equally distributed than income: while the top 10% earn only 25% of total income, they own 50% of the total wealth.

To give example about wealth and regional employment rates in Italy range from 40% in Campania to 73% in Bolzano, which is comparable to the gap between the national employment rate in Greece (49%) and Iceland (82%). Where people live has an impact on the quality of the air they breathe, the services they have access to, and the prevailing level of income inequality. With around 40% of public spending and two thirds of public investment carried out by sub-national governments in the OECD area, this regional dimension to well-being cannot be ignored.

Intergenerational inequalities in well-being take on many different forms which affect the capacity of resilient community. For example, people under 30 years are more likely than those aged 50 or over to feel they have social wealth specially troubled times. The younger generation of working age adults are also much more likely than previous generations to have completed knowledge wealth. Yet these advantages are not necessarily coupled with better economic opportunities for younger people.

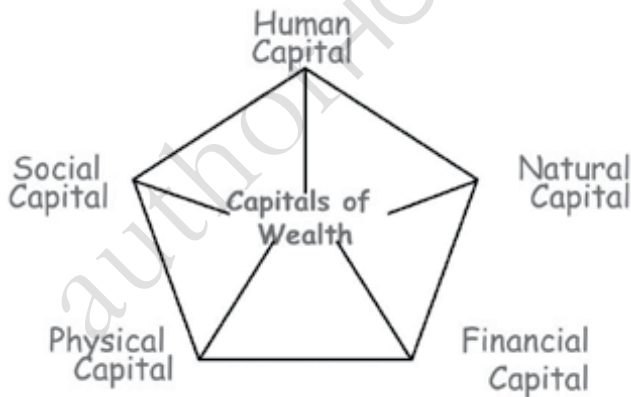
Concept of wealth can be measured on the rate and speed of employment during different stages in life. For example in two-thirds of OECD countries, younger people (aged 15-24) are more likely than prime-aged workers (25-54 years old) to be unemployed for one year or more. OECD confirms that the long-term unemployment rate is more than double among younger workers.

From the discussion above we can notice through resilience based economy we can unlock the hidden wealth of many undiscovered opportunities, even for the under-utilized ones. Therefore, understanding types of livelihoods assets is important factor that establish our global understanding of

the meaning of wealth. Figure (2-2) shows holistic balance of wealth in resilience economy, where human capital is highly differentiated than normal labour as a resilience source of assets. Natural capital and access to common property resources is also appreciated in resilience economy. Even when we cover financial capital it is much more than just wages and for sure it would include how easy it is to access credits. When we cover physical capital we'll include access to water supply, housing, communications, social capital and social status. Having also strong links with family and friends also differentiate our currency of wealth and livelihood in RE concept.

The focus therefore in resilience driven economy to inspire the corporates and upper class power to ensure even distribution of wealth and work collaboratively to proactively face the social problems.

Figure (2-2) shows Capitals of Wealth in Resilience Economy.



In resilience economy the problem of poverty is tackled in the same as the problem of enormous wealth. Also problem bias towards race, sex, age, and level of disability would be also of concern. Barriers to education and entrepreneurship jobs would be also of concern.

Resilience Story

Hospitals and institutions spend lots of human resources to transcribe medical records and medical work. Therefore, resilient social and healthcare system in Hong Kong uses and encourage NGOs to develop methodologies as “e-custody” scheme to provide and electronise services as nursing, social services, occupational therapy, physical therapy and music therapy. This raised the capacity of Hong King citizens with the rising demand and accuracy for homes services.

Resilience in Imbalanced Economy

External imbalances, is commonly measured by the ratio of the current account balance to GDP. The imbalance come as a result of the net lending or borrowing of an economy as a whole against the rest of the world. External imbalances can arise for “good” or “bad” reasons. External imbalances can be the result of utility maximising behaviour in the absence of distortions and reflect the optimal allocation of capital across time and space. For example, current account deficits are not uncommon for catching-up economies which, given a certain level of political and macroeconomic stability as well as security of property rights, provide ample investment opportunities and high returns for foreign investors.

Current account surpluses may reflect accumulated savings for retirement in an ageing society. However, external imbalances may also be due to policy-induced domestic market distortions. For example, current account deficits may reflect underlying competitiveness problems or may arise due to credit or asset price booms.

Persistent current account surpluses on the other hand can signal a dearth of domestic investment possibilities related to rigid product markets, export-led growth strategies or excessive precautionary saving owing to insufficient public social safety nets.

External deficits imperil the sustainability of growth if they reach a substantial size, irrespective of the underlying causes and in contrast to external surpluses. The sustainability of a current account deficit is a function of the ability of the country to attract foreign capital and of its repayment prospects. Hence, high current account deficits can be sustainable as long as there are willing lenders. However, the larger the stock of net foreign liabilities, the less sustainable is a current account deficit position and even more so a trade deficit considering that a surplus in the trade balance is needed to stabilise the net foreign debt position. Large current account deficits make a country more susceptible to changes in foreign investor sentiment.

Persistent real exchange rate misalignments are among the most robust early warning indicators of financial crises (e.g. Frankel and Saravelos, 2012). Real effective exchange rates are largely driven by the same set of fundamentals and policies as current account balances. Persistent real exchange rate appreciations do not need to signal distortions.

Resilience Example

To make themselves visible to those at the edge, community change leaders, innovators, entrepreneurs, thinkers of both developed countries and governments are competing more and more today to bring resilient ideas that would show their visibility to different sectors.

Governments as reported by Cisco team (2011) are using more innovative means to enhance the engagement of those at the edge, whom known they strive to bring change to the community, through opening their data platform, setting prizes and competitions and even setting crowdsourcing tools.

Governments (at the centre) are seeking in return answers from the edge, about how to nurture or create more complex communities of people and institutions that design services, create policy, or solve problems through communities that would work in both formal and information structures to build the knowledge and expertise.

In India, for example, entrepreneur Madhav Chavan pioneered a simple, effective way to work with young women in some of Mumbai's poorest areas to set up preschool centres (Cisco, 2011). With some basic training, a minimum of rules and structure, and incentives to build quality and growth, the network has now grown to the point where the Pratham preschools look after millions of Indian children.

Resilience Labs Role in Socio-Economy

Resilience can be defined as the ability to restore the targeted community after it goes through major change, challenges, failure and/or loss. Resilience labs create the capacity for the organisation or the community to be more elastic in managing or adopting change.

In resilience labs, we acknowledge the work of Zolli and Healy (2013) whom accurately defined the importance of resilience in building the ability to react dynamically to the unexpected, to patch up holes as they appear, and to keep things from going out of control. In our review of Resilience book of Zolli and Healy, we mentioned that one of the uniqueness of resilience is that it keeps things under control; this is why we need more of Resilience Labs which manages disruption in an innovative way till it is stabilised.

With resilience in mind we can make a difference to the creation of a persistent spirit that builds up the main components of the both inspiration and resilience economy (Buheji, Book Review: 'Resilience' for Andrew Zoli and Ann Healy, 2015). This is why, in Inspiration Labs or during the setting up of inspiration engineering, we concentrate on setting up resilience practices as part of the inspiration journey.

The results of being resilient restores all the deeds of the targeted community towards being able to meditate. In reflection to OECD reports of (2014), we realise that embedding resilience in organisations would help to emphasise that the exploration of all our solutions or opportunities should not come from working in silos, but must be through involvement and even engagement of people otherwise we are risking sustainability.

Resilience labs establish the concept of resilience in the mindsets of the participants by asking them to use internal sound and their five senses when carrying out the first observation. The more the participants, or even the inspiration engineer, have internal resilience, the more they can be aligned with positive intentions that usually lead to positive emotional appreciation which is driven by passion. This establishes what we call mental resilience; this builds commitment with a high tolerance to absorb what is experienced.

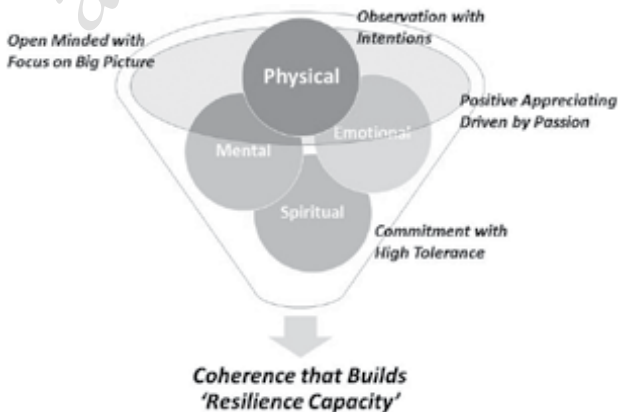
Physical and mental tolerance build spiritual resilience and this makes us more open minded and focused on the big picture, thus enabling us to make intelligent decisions. This basis of resilience balance can be impeded in all resilience engineering designs and blue prints.

Figure (2-3) shows how the four sources of resilience, physical + emotional + mental + spiritual build high levels of coherence and tolerance that then lead to the building a 'resilient capacity' that make us ready for targeted core demands. Once demands are met with the designed 'resilient capacity', inspiration insights occurs. We can improve the outcome of different when we link the resilient capacity with inspiration insights

Equation (2-1)

$$\text{Demand} = \text{'resilient capacity'} = \text{inspiration insights}$$

Figure (2-3) Sources of Resilience



Therefore coherence not only raises our resilience capacity, but it also raises our optimism to see the big picture again and makes us face fear with more stamina and persistence. With resilience, we enhance our ability to utilise our social capital and thus prepare ourselves to manage challenges. While we are striving to find resilience opportunities through different resilience sources, we can create a potential impact on our community. However, this potential impact cannot be completed without raising our capacity to adopt new changes in terms of attitudes, behaviour or environmental challenges. Therefore, with more resilience (i.e. tolerance), we can manage the vulnerability of failures which will lead us to improve our 'adaptive capacity' again.

Resilience Example

In a study that was published in Journal of Inspiration Economy by Joyce and Kinnarney (2014) of RCSI Institute of Leadership in Ireland showed that resilient double-loop learning that comes from leading change initiatives helped leaders to manage the challenges, explore more opportunities and developed new learning.

Resilience in learning found to help to create healthcare professionals that lead change to exercise acute situational awareness in gauging readiness to engage in the change process.

Studies shows that resilient leaders can help facilitate the process of reflection and collaboration and uncover deep insights while generating meaningful and sustainable change.

The study showed that building healthcare resilience thinking leaders can help to establish relationship building, being empathetic, able to view a situation from all sides, communicating honestly, keeping everyone updated, and inviting all to become involved, working with a critical mass and extending one's circle of influence. Imbedding resilience in healthcare leaders thinking helped in creating leaders that behave in an ethical manner, developing mutual trust and respect with co-workers, & being transparent, engaging all stakeholders.

Hospitals transformational leadership training programs found to help to align organisational members and provide inspiration, motivation, intellectual challenge and individualised consideration for the greater good. This again help to build spirit of resilience, self-belief, self-questioning, support structures, down-time and optimism.

Collaborative & Sharing Economy Influence on Resilience Economy

Many people today hear and use different collaborative and sharing economy products or services without realising the depth of these models in our lifestyle and also long-term mindset.

Collaborative economy is based on both sharing and peer economy where the principle of collaborative consumption would be the main module of dealing. The concept of collaborative consumption uses the spirit of resilience to establish its self in the mindset of the traditional consumer whom is used to private ownership and now encouraged for shared collaborative ownership.

Resilience bring three values that are important for sharing and collaborative economy: access, power and trust. Resilience help the establishment of the model of collaborative consumption which enablers access over ownership. Thus resilience economy support the transformation not just what we consume but how we consume.

With resilience economy practices assets could be owned and exchanged directly and indirectly from person to person. Hence RE brings in solutions that enables businesses to unlock and monetize idling capacity of their existing assets. With resilience person to person marketplace can be facilitated and where the currency of trust would be built.

The mechanisms of resilience economy practices helps to build more connections through unique communications embedded in the business

models that smoothen transactions between the different variety of networks.

With resilience spirit sharing underutilized assets as skills, human capital, capital assets, for monetary or non-monetary benefits is more possible. Sharing economy is therefore considered to be a reference to social innovation since it is considered to be a transition from consumer society to sustainable economy. Since the more people uses collaborative consumption and sharing economy models the more they would adapt to swapping owned items and this would help to improve under-utilised products/services.

For spreading the concept of resilience economy the sharing economy comes in the right time, since economic localisation is needed to help differentiate each economy and build from it local living economy. By building a “Sharing Economy” we become resilient to adopt collaborative consumption where economic localization would shift from capitalist mindset where ownership is top priority to access and usership becoming the seen priority.

With “sharing” we spread sustainability behaviours and strategies while empowering micro-entrepreneurs to share and be resilient.

Hence our socio-economy is shifting from being a receiver of what is planned, i.e. passive economy which was the trends on industrial economy in 20th century, to an economy where people would active and interactive consumers and totally involved in the success of the economical business models. Thus we'll witness lots creativity, collaborations, financing, production and even provision from people to people under a more resilient spirit of collaborative economy.

Resilience Example

The collaboration program between the United Nations and the Standby Task Force, built a community of software developers and other technologists who rapidly developed platforms on which people and organisations involved in a disaster or emergency can post information and intelligence. Within a couple of days, a working solution to gather and present easily accessible, real-time intelligence about rapidly changing conditions was up and running for those that needed it most.

The speed with which new insights emerge and new solutions start to make a difference is a function of how easily people can connect their expertise and assets with the expertise and assets of other people.

The return of resilience capacity came true with the recent experience with “crisis commons” responses to emergencies like the Haiti earthquake whom showed how important the collaboration team of UN and Task force. Web designers, network engineers, and IT specialists created a platform with their expertise that those with the knowledge of what is going on in specific locations can easily use so they can make the most of their expertise and knowledge. They make, in effect, common cause for a shared outcome. In this case, it is a quick and effective information base to aid emergency response and recovery, but it could be for other public outcomes —a better policy, a new service designed to better meet the needs of its users, or a smarter, more flexible way to create rules and regulations.

Middle Class and Resilience Economy

One of the main target where many scientists are trying to push for sharing, collaborative, inspiration based resilient economy is the need for strengthening the capacity, not just the quantity of middle class all over the globe. In 2015, the middle class count exceeded 3 billion people, of whom almost half lived in Asia. Annually today statistics shows there are annually about 500 million more people from lower middle class or poverty coming to be middle. This a historic milestone, since if this continues it is expected

that in around 2020, the middle class would be the majority of the global population.

Developed and emerging economy nations have maintained good history of middle class due its capacity to be resilient to any socio-economic instability compared to people in developing and under-developed nations. The class gaps and living standards between the world's countries can be clearly seen in the purchasing power parities (PPPs) which is an exchange rate corrected for differences in the prices of goods and services across countries.

Middle class or middle income population is very important to any economy and resilience economy is no exception. However, while capital economy defines middle class in terms of their income or consumption, in resilience economy they are defined by their maturity and capacity to deal with turbulences and socio-economic reality.

Being middle class in a resilience economy means more than economic security, it is about the ability to have a stable, balanced quality of life while maintaining high values. The size and the well-being of the middle class reflects how resilient they are. The way this class deals also with key economic challenges facing the world, or their century, or community also makes a difference. Therefore, resilience economy combat against any income inequality and encourages the countries readiness for the rapidly developing economic mobility.

We can observe that countries losing its resilience economy safety net when we see a shrinking smaller middle class. Since having both smaller or less well-off middle class reflects that this socio-economy have an unequal income distribution.

The relative decline in middle-income families found to create a rapid drop on the overall consumption of the economy which leads to excessive borrowing and disincentives towards any future investment in country. Therefore, resilience economy focus on creating very vibrant middle class that would improve the resilience of the future generations.

Since the early 1900's, modern history have shown us that the economic concerns of the middle class often contribute to socio-political changes or crisis in both the community and the country. This can be learnt specially from the events that have happened in the last half century in countries in Africa and South America, where the increase in income inequality can be directly linked to the rise of both socio-political and socio-economic polarization.

Even if we study the votes of USA latest election in 2016 where the Republican Party represented by Donald Trump won the election we'll see that the economic slowdown that have impacted the middle classes communities played a key factor in the election results. This has renewed the interest of both addressing the middle class needs and also making the middle class more resilient.

Today more than ever we need to build even in developed countries resilient communities that would have middle class that does not target only to win the competition, or succeed, or have joy, or reach best longevity, or gain power, but rather love and synergy. This needs society that believes in integrity and expect struggle not only wellness.

With acceleration of speed at which many countries are trying to push for middle class expansion it shows that we need more practices of resilience driven economy. We believe even that resilience economy is more need in areas where there is an extraordinary growth of middle class as in China and India.

With resilience practices we won't repeat the sudden fail in numbers of middle-class during 1988 and 2008, which was due to the Asian financial crisis and housing bubble in USA.

Resilience Example

There are about 3.5 billion human considered to be in the range of middle_class as today and as we ready to enter 2018. Basically in the last five years the world witnessed shift where majority of the world's population became in this class or even just on the boarder of being in the upper middle class.

There are about 150 million joining the middle class annually. Resilience economy is highly need as the market size because of middle-class is rapidly expanding. Today, middle class spending even is 15% higher than estimated. If RE not implemented one-third of the world economy would under turmoil or uncontrollable. With no RE measures the most dynamic segment of the middle-class would go into recession.

Volunteering Influence on Resilience Economy

Volunteering makes an important “hidden contribution” to resilience and the development of life purposefulness that leads to well-being, producing goods and services that are not captured by conventional economic statistics, and building social capital through fostering cooperation and trust. When you add up the value of the time people spend on volunteering in OECD countries, it amounts to roughly 2% of GDP per year, on average.

Today we see more people see that they can influence more that their themselves and their families. Therefore we see the spirit of volunteering are spreading more and more through different names and means, such as social entrepreneurship, etc. Volunteering not any more limited to those who tend to be among those who are better off, or those with higher levels of education, and those who have well established jobs (relative to the unemployed).

Many societies now call for volunteering because studies shows that those people, organisation and societies who give time to other communities also get something back in return. Therefore resilience economy benefit from the knowledge and skills fostered by volunteers and their work, and

they feel more satisfied with their lives as a whole. This virtuous circle of volunteering offers win-wins for well-being. However, it also risks further excluding those who have less to start with.

It should therefore be a priority to open up volunteering opportunities to a wider range of people, for enhancing the public initiatives.

Resilience Example

Numerous studies focuses recently on the role of family poverty to create more resilient family members. Studies for example have shown that some practices of poor parents helps to promote socio-economic resilience within the family.

Studies show for example that frequent display of warmth, affection, emotional support; reasonable expectation with children helped the family to be collectively resilient and in harmony in the long term. Families that been straightforward with their children, not harsh in discipline and maintenance common communications and values found to build sustained resilient culture that is hard to copy. These practices therefore are embedded in the Scandinavian day-care programs and schooling system more than ever before.

Deviance Theory & Resilient Socio-Economy

The theory of this deviation, and the loss of standards came from the famous sociologist Dora Kemke Durkeim, one of the founders of modern sociology. Durkeim seen that most of social problems are a result of a deviation from the standards of society rather than a general collapse.

The cause of the social problem is the presence of individuals or groups that insist on behaviour that deviates from prevailing norms and values, and their behaviour is therefore based on special criteria that conflict with the prevailing expectations in society of normal behaviour.

“Every society has certain goals that it seeks to achieve, through legitimate means accepted by society, but within each society we find that there are some individuals or small groups that have been denied these goals, and therefore they are using illegal means to reach something,” says Merton. They seek ... and thus they go out on the custom of the community and on its laws which they have rejected, “and they turn away from normal behaviour.

In the light of the theory of deviation, other scientists added other dimensions of behaviour, including Sutherland, who said that an individual in a society is exposed to primary influences from the primary groups, namely, the individuals to which he or she directly communicates and has close or close relationships and daily interactions, Parents and old companion, children, close friends.

Social problem mostly may not be returned for one reason and therefore cannot be explained under the theory of one of these theories. Social problems are complex and sometimes very complex. Hence, we may have to resort to more than one interpretation of these theories to see where the roots of the problem lie. Unless we stand on the real roots of the problem, it may be difficult, if not impossible, to find a solution.

Resilience Story

The pharmaceutical industry is one of the most resilient industries with high investment and ability to absorb failures in research. A pharmaceutical company would be resilient to the many changes in regulations, adapting to new government legislations and bureaucratic process while still need to compete in relevance to cost vs. price competition.

The resilience of such drug companies reflects and compensate on their sales forces whom uses unique direct marketing techniques in favour of the drug that was invested on with target to build momentum of trusts. After being resilient for each drug process, in average a pharmaceutical company would achieve impressive success in sale after 10 years of investment with annual sales growth rates in excess of 10 per cent per annum and enjoying the resultant growth in profits.

Thus the resilience economy mindset in any pharmaceutical company that would make it persistent in investing in R&D, then followed by aggressive defence of patents and a powerful sales force that build both the trust with the specific drug and the brand would help it to enjoy the success later.

Households and Microeconomic Resilience

To estimate the resilience economy impact of a macroeconomic benefit or loss in consumption, it is necessary to account the distributional impacts of disasters and the ability of households to cope with sudden shocks (Adger et al., 2002; Morris et al., 2002). The 2005 landfall of Katrina on New Orleans has showed the many poor communities that becoming more vulnerable due to climate change. This means government and policy makers need to give priority to this inequality and widening effect of disasters (Atkins and Moy, 2005; Tierney, 2006).

Recent influence of disasters on households and micro-economy shows there are a need for studies on how to build resilience economy practices in such communities. Rodriguez-Oreggia et al. (2009) show for example

that municipalities affected by disasters in Mexico seen an increase in poverty by 1.5 to 3.6 percentage points. In another case, the floods in Mumbai in as reported in Hallegatte et al. (2010) created an impact on the marginalised population welfare.

To assess welfare impacts, we need to study more non-monetary effects not only monetary ones. Studies show thus we need to account for the heterogeneity in consumption losses, and for the pre-disaster income distribution. To perform a detailed analysis, it would be necessary to consider the full distribution of income or wealth in the affected area, the full distribution of impacts of the disaster, and the correlation between the two (i.e. the differential likelihood of being affected by a given amount of losses, depending on the income level).

In order to build micro-economic resilience we need to establish analysis programs that support households how to minimise their impact by disasters. In the analysis we look at the welfare impact for the affected population without considering potential gains in other regions or countries, for instance if non-affected areas capture market shares lost by the affected region.

We assume first that all affected poor households suffer from the same amount of losses which assumed to be proportional to their income. Poor households are often more vulnerable than rich ones, so they are likely to lose a larger fraction of their assets than rich households. The disaster losses are highly heterogeneous and different households are affected very differently.

If poor households save in kind while non-poor save through financial product, the vulnerability of the former will be larger than that of the latter, and the distribution of disaster losses will not be proportional to income or wealth. In the analysis of hurricane Mitch in Honduras (Carter et al., 2007), poor households are found to be affected less often than rich households, but they lose a larger fraction of their assets if they are affected.

We need to calculate how much are consumption losses due to the direct impact of the disaster on households' productive assets (including their home) or to indirect impacts through the impact on firms (and employment and capital gains) and through government-provided services. The impact

of the aggregated consumption would compared to the impact on the welfare, and it depends on the level of wealth (and equality) in the country.

RE Case Study- Resilience of Public Health

Innovative and entrepreneurial culture is not easy in the public sector and especially in Public Health. In this case, we show how, through Inspiration Labs, we worked to establish 'Intelligent Inspection' that lowered the rate of reports of or fines regarding poisonous food by 90%. Using fewer manpower resources, this was achieved by establishing trust worthiness enhancement techniques and through resilience and inspiration engineering.

Ap project in the Bahraini public health targeted to enhance the reputation of fast food services therefore supporting local tourism and quality of life. An assessment was carried our appreciate the problems and challenges that rise the scare of poisenus food. The project team recognised the increase of food poisoning complaints by more than 30% in the last three years in a country that depends on both internal and external tourism and where food outlets and restaurants are one of its main economic constructs. There was a serious need to triple the number of inspectors in order to match the increase in the number of restaurants that require annual inspection, concentrate on restaurants which have repeated incidents, and minimise late responses to food poisoning alerts.

The project team focused on the type of restaurants that have repeated incidents of poisoning outbreaks: i.e. fast food restaurants. The mentality of food handlers vs. the working styles of inspectors (i.e. policing) was observed. The empathetic field visits helped to appreciate the load and psychology of health and food inspectors. The model of how fast food restaurants was assessed including its role in the quality of life of families and communities. An understanding of the challenge to monitoring the amount of food supply outlets compared to the quality of work expected: i.e. no restaurants would have cases of food poisoning after inspection helped to set a special Innovation Cycle. Therefore specifying the type of training needed for the fast food restaurants in the specified area helped to develop a training kit for inspectors.

The project team then started on shifting the paradigm of the inspectors through learning by doing and site visits to ‘black spot’ restaurants to show the difference between being “policing” to “coaching” inspectors. A program was set to focus mainly on ‘black spot’ restaurants (i.e. restaurants with repeated incidents). The team decided then to diversify the types of training programme in terms of the type of restaurant staff, level of education, language and the number of staff. One of the team members came up with initiatives to ‘train the trainer’ to establish internal inspection programmes built into the mindsets of the food handlers in the ‘black spot’ fast food restaurants. This helped to also setup a plan for improving the communication model of inspection officers and their teams, as well as ways of receiving calls 24x 7 throughout the year. This helped to enhance the throughput delivery of the inspection officers’ team through planned visits, and drop & pickup techniques: i.e. reduce time delays in the core services (inspection and coaching).

The final result of this resilience economy exercise was the reduction of the need to visit all restaurants annually by applying green stickers to those with no recent (3 years or more) incidents of food poisoning. This started what we call the green sticker restaurants which help in in consequently reducing poisonous food incidences by 40% in 3 years.

CHAPTER THREE

RE HISTORY & DEVELOPMENT

What delayed Resilience Economy?

Three major social changes during the seventeenth and eighteenth centuries are considered to be the causes for the delay of Resilience Economy and the slow development of mankind towards effective tolerance. The first is the rise of industrial based economy, followed by the emergence of great cities in Europe and the last cause is about the political changes that influenced alienation of people and deprived many of their liberty and rights.

The approach resilience economy was tackled clearly mainly on the last three decades. Blanchard și Katz, (1992) was one of the earliest. Then followed by Briguglio et al. (2006) and Feyer Socudate și Stern (2007). These authors and others that came along over decade focused on building an understanding of returning to the previous level and dynamics of production, employment, wages and foreign trade growth after a period of recession.

Specialised literature distinguishes between large-sized countries and small- and medium-sized ones with respect to ER features regarding both the resilience and recovery capacity from shocks, but also to internal and external vulnerabilities and events (Crowards, 2000, Atkins et al., 2000, Cordina, 2004). However, with the start of the French revolution symbolized the beginning of the resilience economy practices which overcame the political and social tradition.

Emile Durkheim (1858-1917) whom an influential French sociologist and educator studied the ties that bind society together and how to make it more resilient. Durkheim focused on the mechanical solidarity and how to create traditional societies that are united by social similarities. Durkheim called for understanding the organic solidarity and studied deeply how modern societies can be united while maintaining their interdependence. Durkheim was from the early scientist that warned like Ibn Khuldun that the rapid social change leads to loss of social norms and produces many social problems and lead to more delays to resilience based economy.

Karl Marx (1818-1883) was a German philosopher Writer and social critic whom got personally involved in social change and believed that social scientists should help to improve society. However, Marx school over time gone into creating the struggle between owners and workers believing that unless this struggle is made capitalist owners will always oppress ordinary people. Eventually, many people became alienated as capitalist and many communities lose control over their lives.

Max Weber (1864-1920) however being also German scholar who studied wide variety of topics including Marx mistakes gone to see the impact of industrialization on peoples' lives. Support for value free studies and objective research rationalization traditional societies emphasize emotion and personal ties. Therefore, Weber started to see that the only solution for modern societies is to emphasize its quantification of things in order to calculate efficiency and self-control. With Weber school personal ties declined and people became "disenchanted". The Weber school create one of the early work towards resilience based economy even though thought to be materialistic.

W. Du Bois (1868–1963) an American sociologists whom combined the analysis of everyday lived experience with commitment to investigating power and inequality based on race revealed social processes that contributed to maintenance of racial separation. Bois was shifting more towards a resilience based socio-economy as confirmed by the work of Curry et. al (2008).

Resilience Example

Pre-conflict and disasters preparations is a very important practice in resilience economy. For example, lessons from Tsunami of Southeast Asia showed over the last decade specially the importance of prior education and material resource management in enhancing the socio-economic resilience pre-, during- and post-disaster. Another case study is the preparation and resilience processes among children and adults during protracted conflict in Palestine illustrates the importance of prior exposure to conflict and adversity, gender differences in resilience, interventions with children in conflict zones, and relational and political meaning-making in response to violence. Comparisons with cultural understandings of resilience in Afghanistan is also another case that shows preparation with intergenerational processes can increase social stability and harmony.

Development of Resilient Schools

Schools have a role in the stability and resilience of any society. With resilient schools we can establish communities with positive attitudes that would have more self-connectedness. Resilient schools work on establishing change and improvement. Resilient schools help to teach resiliency and create a simulation for ridiculous situations.

In order to foster resilience in youth we should help them to have a purpose when they see abnormal in having difficulties in life. Help them to see that problems are opportunities that can be explored, solved and developed. Fostering resilience in youth means we need to keep things in perspective and to make then see any problem or challenge not being confined only to one side. Youth need to be encouraged to accept responsibility for their actions in order to prepare them to persist and believe they can get there. Therefore through creating a positive environment, that emphasises the importance of youth relationships and a sense of purpose we can generate youth resilience economy.

In order to teach resilience we need to enable students to visualise success. Teaching resilience is not a luxury business it increases mastery and self-esteem which leads to better self-efficacy and the ability to take control. Through resilience we can be more optimistic and manage stress effectively. Through resilience teaching we can improve the decision making process and help people to deal with conflicts successfully.

In a new study published in *Psychological Science*, by neuroscientists Moshe Bar, professor at Harvard Medical School, concluded that the less our minds load the more capacity we have for creative thought. Therefore the tension between exploration and exploitation in our brains makes a great difference for ability to be more resilient. Once an exploration exercise is started, the mind becomes more curious and starts learning new things. The more we continue this practice of exploration the more our mind would be resilient to expect the unexpected and to manage it too.

However if the mind is driven by exploitation of what is available, i.e. without being challenged to discover or go through non-comfort zone, we will grasp on what we already know, and we become more rigid in discovering new areas and thus we start to believe and see on what we know and perceive. Therefore, the resilience mind tries to balance between exploring and exploiting practices in order to enhance the capacity to absorb any life sudden life challenges. Hence, the attitude of individuals would be more towards exploration if they manage to keep their mind focused. The resilience deeds that define our decision whether we explore or exploit depends on how we see and calculate risk.

Resilience Example

The *Journal of Inspiration Economy* published in September 2014, a research for two Finnish professors (Katri and Pasi Valkokari) about Business Network Resilience which is very important for enhancing the self-organising enterprise adaptability with fast-changing markets.

Many studies demonstrate that commitment to the network is crucial to ensure long-term cooperation within the entity, besides moderating

the behaviour of partners (Mohr et al., 1996, Sharma et al., 2006; Andresen et al., 2012). There are many returns on investing on such resilience economy principle since it establishes a proactive readiness between the concepts of communication, interaction, social exchange, sense-making and other on-going coordination processes within the organisation network.

Learning resilience from the way that animal swarms communicate as explored by Valkokari team found to enhance the interaction and joint sense-making of the more appropriate activities for network 'management' than the normal available theories today. Resilience in communication through shared goals and enhanced network operations influence the strategic choices of network members and ensure their commitment to the network and its 'common good'.

Learning resilience from swarm network intelligence create new thinking for future management innovation. Swarms found to do lots of resilient communication practices that need to be emphasised in our business operations such as network mapping, business models and partner evaluation.

There are fundamental lessons can be learned from the swarms in forming and renewing business networks through network of firms that work as one operational system in which each member of the 'community' define its task (role and responsibilities) and manages internal process in a way that is beneficial to all the network members.

Such resilience learnt from the network of swarms of equals networking would help the SMEs to survive and develop and thus enhance its communication influence opportunities. It is a technique that is avoiding controlling the actions of others; however it count on communicating the common good and renewing the 'network thinking' through the lessons learnt from animal swarms. By exploring the swarms intelligence we can create new thinking about the management of business networks. This means we need to consider how SMEs can communicate shared intent within the business network and ensure the commitment of other network members to this intent, i.e. same as the swarm's ensures its collective efforts.

Development of Attitudes Towards Social Problems

When individuals realize the existence of a social problem, they take different and varied positions towards them, and the positions of individuals differ according to the degree of proximity or distance from the problem. Their ability to distant themselves psychologically, socially and scientifically.

Resilience is about mitigation and management of feelings or practices that leads to the indifference, the capitulation, the cynical doubt and scorn, religious bias, the feelings of hatred and the emotional accession.

The dimensions of the social problems increased and then reduced historically through stages of humanity journey. With the beginning of rapid industrialization and urbanization the socio-economic problems increased in very disorganized and deviant way that affected the human behaviour.

Non-resilient cultures unfortunately views people as fixed entities, which are unchangeable. Such cultures sees people are born fixed characteristics, i.e. good or evil. We need therefore develop plans that change the attitudes in dealing with financial services. The plan can promote local procurement practises and resource flows, especially to small businesses, social enterprises and the voluntary sector. The attitude change plan should help to build an understanding of the area' reliance on natural resources, and the potential threats to these resources.

A collaborative project in Sweden tried to change the social attitudes towards socialisation which is considered a social problem in the Scandinavian Countries specifically.

By using a co-creation development methodology the public participated in designing shared spaces called Malmö's crowd-sourced living room. The aim of these living rooms aims to break down walls between communities and empower the citizens and civic development associations. It builds and nurture resilience and foster better civic engagement.

Studies shows that both psychological and environmental factors contribute to the development of social attitudes. As we try to manage the problems related to social attitudes we need to remember that resilience is not a binary quality number that people either have or do not have. It is rather series of thoughts, beliefs, attitudes and behaviours that can be learned and developed.

Resilience Example

A study was conducted by Amir Hasan (2015) to determine the key drivers that influence retail shopping behaviour of customers, in order to prepare the retailers to be more resilient to the changing and dynamic customer demands. Since retail industry has changed and expanded in all lines of business, be it apparel, jewellery, footwear, groceries. etc. the modern consumer is posing a challenging task for the Indian retailer specifically with the rising middle. The Indian consumers are becoming more aware, more confident and much more demanding, therefore the retailers need to be more resilient in finding ways to deliver better consumer value and to increase consumer purchase intention. The study emphasis that the resilience of retailers would help to differentiate them by making their service easier to consumers.

The study showed information from 300 shoppers in different retail stores of Lucknow. The findings reveal that resilient retailers can influence shopping behaviour of customers towards reduced price, sales promotion, quality of the products, proximity to the home, customer service and store atmospherics.

Resilience Economy during Recession

The severity of the recession has also caused a profound crisis in thinking about the economy and in particular about the nature of economic growth with increasing attention being paid to ideas of sustainability and economic 'resilience'. While the concept of resilience is often considered 'fuzzy' as per Pendall et al (2009), resilience during recession means about having 'the ability of an economy to adapt, both to shocks and to long-term changes'.

Studying the UK recession in 2007 and how it affected the economic life badly, many regions within UK suffered from the initial economic shock and the subsequent policies that followed. Despite UK was implementing some of the practices of resilience economy, the years between 2008 and 2013 saw a sharp fall in employment rates. Having learned from the lesson of 2007, UK today is one of the best OECD countries that have established consistency in research about recessions preparedness (OECD 2011).

The importance of theories of resilience is that it focuses on creating legitimate concern about recovering from recession. In recession having resilience community means learning from the past lessons where opportunities are discovered and preparation for the future economic crisis would be optimised.

Therefore in order to mitigate the severity of any recession we need to be really establish clear risk management in the strategies of the economic growth. Avoiding recession demands decentralisation of powers that drive sustainable growth and tackle the local impacts of economic shocks while ensuring businesses and citizen engagement. Mitigating recession also requires transparency and accountability of the economic planning process, and identifying priorities in change management plans. Taking in account the wider global context, the impact of the recessions can help promote responsible business practices and wider social outcomes, including tackling complex issues as unemployment, poverty and inequality.

In the wake of the recession, the biggest test for the economic resilience is the tools that have been prepared to re-direct the growth and development efforts. Here the tests would be whether plans are put for continuity to tackle unemployment even in times of rescission.

During recession RE checklist check the understanding between the local recession and the global economy help to identify weaknesses, as well as strengths. The checklist plan to demonstrate an appropriate understanding of recent recession's impact.

Resilience Example

The global financial crisis of 2008-09 that hit both developing and emerging markets and also developed countries brought great lessons. Developed countries for example attained lower rates of GDP growth during the crisis which shows that the impact of crisis hit both emerging and advanced countries equally.

Studies shows that the largest growth collapses after such disasters tend to occur in the wealthier emerging countries and poorer high-income economies. i.e. Semi-Developed countries proven to be the most resilient to such crisis.

History of Resilience Economy Research

The first research on resilience was published in 1973. The study used epidemiology, which is the study of disease prevalence, to uncover the risks and the protective factors that now help define resilience. A year later, the same group of researchers created tools to look at systems that support development of resilience.

The resilience perspective began to influence fields outside ecology like anthropology where Vayda and McCay (1975) challenged Rappaport's (1967) concept of culture as an equilibrium-based system, in ecological economics in relation to biological diversity (Perrings et al., 1992), non-linear dynamics (Common and Perrings, 1992) and the modelling of complex systems of humans and nature (Costanza et al., 1993), in environmental psychology (Lamson, 1986), cultural theory (Thompson et al., 1990), human geography (Zimmerer, 1994), the management literature (King, 1995), property rights and common property research (Hanna et al., 1996) and also other social sciences (reviewed by Scoones, 1999; Abel and Stepp, 2003; Davidson-Hunt and Berkes, 2003).

Emmy Werner was one of the early scientists to use the term resilience in the 1970s. She studied a cohort of children from Kauai, Hawaii. Kauai was

quite poor and many of the children in the study grew up with alcoholic or mentally ill parents. Many of the parents were also out of work. Werner noted that of the children who grew up in these detrimental situations, two-thirds exhibited destructive behaviours in their later teen years, such as chronic unemployment, substance abuse, and out-of-wedlock births (in case of teenage girls). However, one-third of these youngsters did not exhibit destructive behaviours. Werner called the latter group «resilient».

Besides the above distinction on resilience, research has also been devoted to discovering the organisation differences in resilience. Self-esteem, ego-control, and ego-resiliency are related to behavioural adaptation.

Economic Research on 'resilience building' is still very rare. Those who view resilience as a description of doing well despite adversity, view efforts of 'resilience economy building' as methods to encourage resilience. Research also still rare on positive tracking of events, enhancing psychosocial protective factors that would enhance resilience building.

Therefore, more research is needed to increase the type of resources that would cope with or otherwise address the negative aspects of risk or adversity of resilience. In the same time we should generalise research finding and adopt it in organisations strategies in order to enhance resilience, allows for better outcomes in the socio-economic events.

We can work on the developing and monitoring the development of resilience through enhancing the ability to cope with pressure, and lifestyle behaviours. Building resilience involves a two pronged approaches: personal coping skills and environmental factors.

Every person is capable of being resilient if they link resilience to their life goals. People can reach their life goals at different times even if they hold high expectations. This can be done partly if we keep encouraging young people to volunteer and help others. Building resilience means people in life will have had to overcome failures, used role models, viewed failures as learning opportunities.

Resilience Story

The traditional Confucian culture in China play a significant role in the level and understanding of Chinese resilience economy practice. Confucianism is a fundamental philosophical thought that reflects resilience economy through the moral ethics and the Chinese understanding of human relationships. Resilience and harmony Confucianism has dominated the Chinese ideology and shaped the Chinese culture for more than two thousand years.

The basic resilience values included in Confucianism as a philosophy are moral cultivation, family orientation, hierarchy respect, social harmony and caring about interpersonal relationships. The focus of Confucianism views avoid breaking “the patterns of the past” and highlight the importance of transmitting instead of creating. This type of thinking affects today the differentiation of development in the Chinese projects and industries.

Social Pathology and its Influence on RE

The social problem is prevalent in social organization that have social illness that focus on the physical developments and its relationship to the functions of Human life.

Resilience is about managing the deviations in the social pathology towards a normal society deviation. Non-Resilience is considered a sickness because it does not represent the natural state. Non-resilience is an abnormal state because it does not reflect the social aspect of humanity.

Resilience Economy focus on the studying the living conditions of poor immigrants. For example, we need more resilience practices from Europeans, whom accepting African and Asian migrants every day in their countries and where those migrant are settling in urban cities that are known for their social mobility. We need resilience practices in dealing with people from the underdeveloped areas of the Slums, where deep poverty, crime, delinquency, rift families and ethnic strife are preventing youth from seeing their dreams possible or achievable.

Values of social ills are represented more and more today in the social life style where deviation from the standards and rules determines the desired patterns of society behaviour. Resilience economy therefore aims to study the deviant behaviour and identify the social problem and then find means to solutions that would help develop the socio-economic status.

Mass media encourages people to believe that they need to be perfect. This encourages us to feel inadequate and, again, exaggerates our inevitable problems and difficulties. This undermines resilience when the person sees that perfection is not attainable. Mass media encourages us to compare ourselves with the rich and famous.

Paradoxically resilience make people not to choose, or regret their choices, or feel depressed or overwhelmed for their choices. People can bounce back psychologically after being knocked out of shape, just like in nature. Bouncing back is the ability to cope with adversity or hardship. When people bounce back means that people can carry on, and even flourish, after setbacks.

Resilience Story

A study that was published in Journal of Inspiration Economy by Merlin-Brogniart and Provost-Moursli (2015) on the resilience of nursing homes that is facing huge and barely reconcilable challenges. Nursing homes and specially in a developed country as Belgium are constantly seeking compromise solutions and are thereby forced to innovate in numerous fields. Resilience and diversity of innovations in the nursing home sector were studied in non-profit, for-profit and state owned nursing homes.

The three type proven to co-exist with each other giving customer variety of choices and according to the demand of the quality of life. The findings suggest that innovation in nursing homes is far from being limited to 'medical' and 'technological' fields but exist in a wide range and diversity of forms even in the non-profit nursing homes. The research shows the important resilience as an actor that gives such business not only survival with the high demands and in a difficult financial time but also the spirit of renewal and innovation.

Social Disorganization & its role in RE Development

Applying the concept of pathology on the concept of social disintegration help to reflect the fundamental changes in the social problems that require analysis. This is because evidence of pathology is a sign of social disintegration.

The concept of social disintegration refers to the inadequacy or dysfunction of the social system in its basic functions of achieving continuity and stability. When organization suffers conflicts that can't be handled it means it is lacking functioning of the social structures of its functions.

Resilience economy focus on the importance of re-educating immigrants to effectively solve their problems by changing their mindsets. Resilience education focus on first building self-fulfilment supported by mentorship and educational programs.

Social disintegration means organizational weakness that is based on deviant behaviour. Each deviant behaviour is a pattern that focuses on different phenomena.

Sources of social disintegration come from conflict of interests and values: it is linked to two groups each of which seeks primarily to achieve their interests. Conflict of status and obligations of the role is linked to radical change. The diversity of the status of individuals within a single society, and the multiplicity of social roles of the individual within the community, help to build the resilience economy.

A conflict occurs between roles because of the ambiguity of the role resulting in failing to play the role within social integration. Conflict occurs also due to lack of socialization. Socialization is a process in which individuals acquire attitudes and values that are compatible with their social roles. The lack of socialization leads to social disintegration resulting from a lack of clarity of the mutual expectations among individuals in society which increase due to conflict behaviour that replace the old resilient behaviours. Resilient Society need channels of mass communication that

leads to success of individuals' performance to functions within social organization, and overcoming conflict between interests or values.

Hence failure of individuals to achieve social expectations relevant to their roles in the society leads to sudden weakness in the social fabric which results in imbalances or inconsistencies between parts of the social system in society. This imbalance in the functions of social systems leads to rigidity in the general social order.

The imbalance results from failure of individuals in their roles, and failure occurs through three methods: standard failure, cultural failure, frustration. Social disintegration is attributed to the failure of the social pattern that builds the centres of cohesiveness and coherence which help to establish the functional requirements in an effective manner.

Resilience Example

As discussed in one of the examples earlier, resilience practices affected by Confucius teachings in the Chinese culture lead to socio-economic influence that spread harmonious practices in every sector. Through the values of Laozi, Han Fei, Tao and dao China differentiate its managerial and leadership practices than the western world (Galal, 2015). This reflected on different principles that create this resilience. The first principle is “yin and yang” which represent the negative and positive sides, or the female and male, or darkness and light. The “yin and yang” concept emphasizes the complementarities of life as well as its balanced composition, thus harmony could be achieved.

The second principle of harmony is the “Tao”. The ancient Chinese philosopher, “Lao Tzu”, believed that human life, like everything else in the universe, is constantly influenced by external forces. He encouraged his followers to observe and seek to understand the laws of nature, to develop intuition and to build up personal power, and to use that power to lead life with love and without force. The core of Taoism is the concept of “WùWéi” that involves knowing when to act and when not to act. It is a natural reaction, as planets revolve around the sun but naturally

doing it. It means doing things naturally without effort. One saying of “Lao Tzu,” “The truth is not always beautiful, nor beautiful words are the truth”. Lao Tzu’s main book is called “Dao De Jing (DDJ). It can be compared to Confucius’s “Analects” or “Sun Tzu’s” “Art of War”. It can also be compared with the New Testament as “Lao Tzu” has been compared with Jesus Christ. Some scholars even found that Jesus and “Lao Tzu” features astonishingly have great resemblance. These two spiritual masters led their followers down the same path despite vast differences in era and geography.

The third principle of Chinese resilience and harmony is legalist school (legalism: FǎJia i.e. school of law). It was one of the main philosophic schools during the “Spring and Autumn” period and the “Warring States” period (770-221 BC). It was a period of great cultural and intellectual ferment in China. It gave rise to the famous concept of let one thousand Schools of Thought to blossom.

Resilience Economy in the Supply Chain

One of the most dynamic processes and systems in a globalised economy is supply chain systems. You’ll see in every business model be it for organisations, entrepreneurial projects, community services and governments a specific supply chains Management System (SCMS) that differentiates them from others.

In unstable and very dynamic environment uncertainty about the sustenance of delivery of specific outputs and outcomes mainly are linked to the SCMS and its resilience mechanism. This requires understanding the anatomy of the supply chain (SC) performance for the specific type of business what defines its competitive efficiency and flexibility (Sheffi and Rice, 2005; Tomlin 2006).

Dolgui and Prodhon (2007) disruptions are highly unpredictable. Therefore, their risk and SC resilience should be estimated at the design and planning stages in the proactive mode.

Xerox was one of the first large business companies whom adopted a resilient business model in supply chain. Xerox started leasing the equipment, instead of selling it, at a relatively low cost and then charging a per copy fee for copies in excess of 2000 copies per day. This created a win-win situation for many businesses and help to develop the supply chain for all parties.

Resilience Example

Professors Sen Bao and Marja Toivonen (2015) published a research on the importance of have resilient cultural and creative Industries that would reflect in the academic, policy making, professional and industry life. The Bao and Toivonen mention about the affect of this resilience in the industrialisation of Chinese culture after the emergence of the “open door” policy in 1979 where the Chinese government experienced a transition from culture institutions to culture industries.

Resilient culture affects how commodities in the culture make the citizens can purchase and consume freely. This concept create an innovation country. The creativity and utilisation of technology in traditional cultural industries integrates culture and creativity firmly together.

Resilience in Chinese supply chain design is also highly needed due to the growing demands from the large consumer markets which would help to improve the living standards and changes the life style. Through resilience economy driven practices numerous cultural and creative parks, especially with the animation theme, have been built in a very short time frame in different regions of China.

In addition, there are some developmental contradictions that are more deeply rooted in the economic and socio-political situation in China.

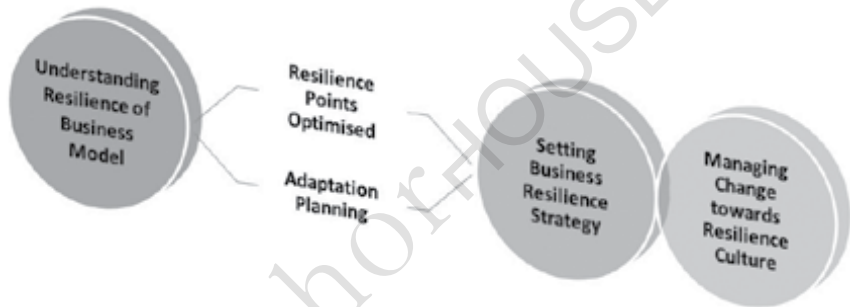
The resilient development of cultural and creative industries in the Eastern part of China through the three clusters (Shanghai, Beijing and Guangzhou) have attracted many young talents and started to form a certain level of the industry chain, based on the strong consumption power in these regions. Today this resilience is support with the advanced

technology infrastructure that started to differentiate China compared to other countries. This helped to rising awareness and local consumers' demands on high quality contents which again helped to improve the innovation in manufacturing.

Resilience Business Model RE Process

Building resilient business models optimise the capacity of planning and helps to sets business resilience strategy. Figure (3-1) help to manage change towards resilience culture.

Figure (3-1) Illustrate Resilience Business Model role towards Culture.



As any business model, resilience model needs preparation, concentration, incubation, insight, checking, evaluation and further development.

In resilience models we can establish curiosity, flexibility, passion and inspiration. This help the components of RE model to focus on natural aptitudes, personal characteristics, motivation and readiness. RE model depends on the cognitive capacities (as problem solving) and biological factors.

RE model reduces the uncertainty associated with the desired outcome. Resilience help to make people deal with ambiguous or uncertain outcomes.

Resilience Example

Resilience business models try usually to balance between establishing a brand in the market and creating a positive change. If a small business wished to participate in the global economy it was largely relegated to providing an intermediate product to a large multi-national supply process. This model for trade is the result of the immense resources that have traditionally been required to develop an international customer base and deliver a product or service efficiently across borders, as per the eBay Inc., Public Policy Lab team published paper (Ahmed and Melin (2015)).

Technology of the Internet, is now enabling businesses of all sizes to trade directly with consumers around the world. We refer to this emerging model as the “Global Empowerment Network”. It is it a resilient network that brings together a set of conditions, such as Internet connectivity, digital services, and logistics solutions. These conditions contribute to an emerging borderless system adaptable to the needs of individual firms. However, the full potential of this model depends on the availability in countries with the right policy, legal and administrative solutions.

The study shown that geographic distance and being from either developed or developing market have little negative impact on online trade flows. Also the research found that with technology and the Internet today we can foster trade with multi-countries. i.e. small business traders on eBay in both developed and developing markets reach on average about 30 to 40 different foreign markets.

Against these research findings, we conclude that the Global Value Chains model (i.e., whereby small businesses enter the global market by becoming a part of the production process of a much larger firm) it is not the only way for small businesses to reach and service customers in international markets. The resilience design that is supported by the combination of the Internet and digital services make it possible for businesses anywhere to reach consumers everywhere. This means that sustainable global operations can spring out of small local establishments.

Development of Resilience Economy Framework

Resilience framework is straight forward since it is built around the precautions of danger signs and pushes always towards more independence. Plan only plays to the local area's strengths, supporting key sectors and employers. RE fosters productive relationships between businesses, local communities and academic institutions.

A successful resilience economy framework would focus on in the way we think and handle issues of growth and development; rather than focusing on investment and venture capital (McInroy and Longlands 2010). The framework would be based on effective diversity along with clear focused youth economy driven program.

The most important factor for it being a resilience economy driven framework is that its economic development doesn't depend totally on resources and once resources are needed as i.e. land-use, it would be based on very efficient strategies.

The framework would be focused on solving on time social issues, as unemployment through local economies development plans. It is a framework that pushes for a thriving community and active voluntary sector which gradually would create stronger public sector, then effective public services that lead to sustained economic development.

The RE framework would call for more focus on the environmental change and ways to develop more sustainable growth. It would smoothly provide the platform for collaborative diverse range of responsible businesses and enterprises in terms of size, model (social, private) and the goods and services produced that provide good jobs (in terms of meaningful work, progression, remuneration), respond to local demand, and support a balanced regional economy. High local multipliers in terms of spending and investment locally, and high resource-efficiency (such as waste re-use/reduction).

The RE framework would usually help to raise the local capacity to act and engage in dynamic transformation while maintaining strong levels

of social cohesion and shared vision for action. Capability and resilience of individuals across the community is reflected even in the enterprises behaviours thus leading to a culture of responsible business as we seen in leading countries that lead the World Competitiveness Index.

Practices as operating within environmental limits, positive resources flows, strong local asset-base in terms of attitude, skills, knowledge within the community and access to fair financial services Access and control over productive resources. Increased understanding of economic, cultural and ecological interconnections that link communities, span the globe and impact on the future.

The resilience framework therefore would carry collaboration within and between communities, investment and local resource flows, responsible business integration and responsive public sector engagement and accountability. The framework should attract us to whatever we give time to, including attention and focus. It is a framework that start by doing what's necessary then what's possible which all would lead to doing the impossible.

Examples of Resilience

South East Midlands (SEM) strategic economic plan is based on extensive resilience focused engagement between businesses and citizens. It undertook a business survey with over 1,700 businesses across the south-east Midlands. The survey involved a telephone interview which covered a wide range of business-related issues, including barriers to growth, business optimism, access to finance, business support and links to innovation and R&D, as well as skills shortages and gaps. In addition, SEM are consulting extensively with local authority partners, the voluntary and community sector, further and higher education institutes, and firms and business networks through a series of events and regular meetings held across the south-east Midlands.

Macroeconomic Stability and RE

Macroeconomic stability relates to the interaction between an economy's demand and supply where the economy is expected to move in equilibrium and internal balance.

In RE the balance of macro-economy comes with the balance of the international current account position and the level of external debt that support facing adverse shocks.

The macroeconomic stability aspect of the resilience index is thus constructed on the basis of three variables fiscal deficit to GDP ratio, the sum of the unemployment and inflation rates, and the external debt to GDP ratio.

The government budget position is suitable for inclusion in the resilience index because it is the result of fiscal policy, which is one of the main tools available to government, and indicates resilience of a shock-counteracting nature. This is because a healthy fiscal position would allow adjustments to taxation and expenditure policies in the face of adverse shocks.

The goal of RE is create an economy that has low levels of inflation and unemployment, then it can withstand adverse shocks to these variables without excessive welfare costs.

The adequacy of external policy may be gauged through the inclusion of the external debt to GDP ratio. This is considered to be a good measure of resilience, because a country with a low level of external debt may find it more difficult to mobilize resources in order to offset the effects of external shocks. Thus, this variable would indicate resilience of a shock-counteracting nature.

It may be surprising to observe that the United States is not among the first 10 placed in macroeconomic stability index, although it ranks at a relatively high place in the 12th position.

On the other hand a number of small states, notably Hong Kong and Singapore, rank high on the index. In this regard, it is to be borne in mind that this is not an indicator of economic development but one that

represents the ability of the macroeconomy to absorb or counteract adverse economic shocks.

Examples of Resilience

Public innovation studies highlight the need for more flexible public organizations that allow for experimentation, waste and failure (Borins, 2006; Potts 2009; Brown and Osborne, 2013), in such a way that the innovation process is enabled. Resilience economy calls for total reform of public administration, so bureaucracy won't be a barrier for implementing technical instruments and managerial strategies. Without this resilience driven reform public sector can't sustain efficiency, quality and effectiveness. In order to do this we need to enhance the understanding of processes enabling public innovation – acquired in developed contexts.

Developing public institutions that differ from the context where public innovation is commonly observed might lead to a different understanding of the innovation process. For example: Samaratunge and Bennington (2002) review the situation of Sri Lanka after a period of reform, Manning (2001) makes an analysis from many developing regions, Arellano (2000) explains the situation of Mexican local government institutions and Cabrero (1997) focus in the case of Latin American countries facing reforms. Their findings are similar in what makes durable sustainable reforms a difficult task.

Even if they are democratic states, it is common that local authorities in developing countries are taken by interest groups that dominate the local stage, which result in discretionary governs that use public administration as a political tool. Thus, resilience practices are needed in order to raise the accountability of those in power.

Microeconomic Stability and RE

The science of economics markets adjust rapidly to achieve equilibrium, then manage the effects of shocks can be easily absorbed in the economy

and the relative adjustments be readily affected. If, on the other hand, market disequilibria tend to persist, especially in the face of adverse shocks, then resources will not be efficiently allocated in the economy, resulting in welfare costs, manifested, for instance, in outflows of capital, unemployed resources and waste or shortages in the goods markets.

If, in the face of an adverse shock, markets respond efficiently by means of higher interest rates and lower asset prices, capital can be retained in the economy such that the adverse shocks are reflected in price variables rather than in the volume of physical investment which would have an important influence on economic activity. If, on the other hand, prices in the financial markets fail to properly adjust, then it would be more likely for capital to leave the economy in the face of an adverse shock, thereby affecting economic activity and employment. Similar considerations may be made for the way in which the labor and product markets equilibrate in the economy. These issues would have important implications for resilience of the shock-absorbing type.

Resilience Example

Care of the elderly in Zurich, Switzerland, is considered to be the best in the world. The elderly care in Zurich is focused on using appreciative enquiry to improve the socio-economic and health-economic returns and quality of life of its citizens. The Swiss program now is shifting to provide humour care for the elderly as a resilient coping mechanism to maintain a state of happiness in the face of age-related adversity.

Resilience in Scarce Resources

When capital cannot produce because of a lack of input (e.g., electricity, water), several options are available: input substitution, production rescheduling, mobilization of existing idle resources, and longer work hours when services are restored and can compensate for a significant fraction of the losses (Rose et al., 2007a).

Loss of output in the affected area and during the disaster aftermath could also be compensated by increased production outside the affected area.

Even within the affected area, output losses from destroyed capital can be compensated by increased production from factories and production units that did not suffer from losses and had idle capacity before the event (which depends on the pre-existing situation).

In developing countries, where capital is scarce and (unskilled) labor abundant, large idle capacity do not exist in many sectors (e.g., electricity generation capacity is often lower than what demand would require). However, many developing country economies are plagued with large distortions that sometimes lead to excess investments in capital. In that latter case, it is possible that idle capacity is available and that the reduction in capacity due to a disaster has no impact.

Resilience mechanisms can mitigate output losses, and can especially reduce the crowding-out effects of reconstruction on normal consumption and investment. But their ability to do so is limited, especially when losses are large. In case of large disasters, output losses will be largely dependent on two characteristics of the economy: the adaptability and flexibility of its production processes; and its ability to channel economic production toward its most efficient uses (Hallegatte, 2014).

Resilience Story

Cemex, a global cement company based in Mexico, demonstrates the linkage between enterprise success and social resilience in its efforts to provide poor communities with access to affordable building materials. Cemex devised a program called Patrimonio Hoy (Patrimony Today) to make financial credit and technical assistance available to the economically disadvantaged – often referred to as the “bottom of the pyramid.” This program not only tapped a profitable new growth market for Cemex, but it also created new jobs and improved community quality of life both physically and psychologically – providing a sense of inclusion, cohesion, and pride.

Resilience towards Production Capacity

Many people look at disaster as totally negative event. However, disasters many times carries inside them mercies and opportunities that we, as human, can't easily see and/or appreciate. We tend to become proactive and carry with us lots of competitive survival competencies that bring along with unique collaboration and synergy stories. With these practices around we can establish communities that target to create legacy through selective innovative production.

Studies on the impact of disasters shows that increases the production capacity since the demand for reconstruction activities and service/goods supply would be much higher than in times of piece. Studies even found that during times of restoration more resilience economy practices would be stimulated. Economically studies found that each dollar spent on reconstruction increases the GDP by two dollars, especially after disasters.

From the work of Hallegatte and Ghil, (2008) we learn however, that the production capacity would depend on the type of stimulus and its consequences. i.e. Depending on the pre-existing economic situation, such as situation of the business before distortions occur.

There lots of case studies today shows that sudden stimulus can yield benefits to the economy by mobilizing idle capacities. Taking the stimulus of the 1999 earthquake in Turkey which caused direct destructions that counted for up to 3% of Turkey's GDP, has raised significant unused resources in the socio-economy at that time. Hence despite that the Turkish productivity preceding the earthquake have reduced, the earthquake created a stimulus that increased the productive capacity again.

In 1992, when Hurricane Andrew made landfall on south Florida, the economy was depressed and only 50% of the construction workers were employed (West and Lenze, 1994). Reconstruction had a stimulus effect on the construction sector, which would have been impossible in a better economic situation (e.g., in 2004 when four hurricanes hit Florida during a housing construction boom).

In resilience economy we created labs that stimulate the productive capacity towards resilience without waiting for disaster. The resilience economy labs help to see how to enhance the welfare system and human impacts even in cases of disaster. Here resilience labs doesn't train for preparedness during or post disaster, but rather resilience engineering in pre-disaster stages. In these stages the product capacity is focused on building infrastructure that I robust and can manage disasters. This infrastructure can be economical, technological, environmental and legal. For example it can be building more alternative better housing that support self-sufficiency and management of disasters with minimal need for re-construction.

With resilience we increase the organisational capacity to compensate for unavailable supplies. Thus the organisation would cope with shocks and able to efficiently allocate the resources remaining after the disaster.

RE Case Study- Resilience of Primary Healthcare

Adopting the WHO NCD Non-Communicable Diseases Risk Factor Scale of 10 (100%) two health centres in Bahrain taken a random sample with 1000 patients from both genders and from different occupations. The program was resilience in involving all GP staff and family medicine teams (physicians, nurses, administration staff, health visitors, awareness specialists and social workers). Every physician was asked to choose a minimum of 10 patients with a challenge that the hit rate would above 80% (whether selected patients were the right NCD patients). The program helped to empower more authority to nurses, social workers and health visitors to spot NCDs earlier and continue to measure their hit rate.

More than 91% were shown to be likely to suffer one of the NCDs in the next 10 years. The two health centres started projects to reduce the risk factors, where they both taken to be a reference model with a target population of 50 patients each. One centre focused on working with families while the other centre focused on wellness with random patients with a risk factor in less than 10 years.

Both centres focused on changing the life style in terms of sleeping, eating, socialising, cutting out or reducing smoking, and, most of all, lightly exercising. The results were amazing. Both centres managed to reduce those with a risk factor of 10 years from being, on average, 80% to 56% (either by pushing them totally out of risk factor 6% or delaying their risk factors to occur in 20 years). Also, they managed to reduce those with a risk factor in 20 years to be pushed towards after 30%, especially in 30% of the young patients. In young people, they managed to reduce the risk factors for NCDs in 45% of them and now almost 70% of the participants have risk factors in the range after 11 till 40 years.

The study was supported by 'Schools Health Programme' where more than 30,000 students from 13 to 18 years old were included. The number again showed a relatively high level compared to the students' ages: i.e., on average, 40% would get NCDs in next 20 years. There are now more than 32 health centres in which follow this catchment programme and use both models. The risk factors in the general population have now dropped from 91% to 82% in just 3 years, without adding any extra resources.

The project team were very selective about increasing the availability of health visitor in all highly populated areas, such as shopping centres, etc. around the year. Measure the performance of each of the primary care teams in terms of how they innovate in creating awareness in their potential population.

Create practising communities of collaborative partnership programmes with large organisations such as universities, government organisations, etc. and measure their hit rates.

CHAPTER FOUR

RE ENABLERS

Signs of Resilience Enablers

There are lots of signs for resilience through either enablers or outcomes. For example, resilience can be enhanced through the best practices of human development. For example, providing proper welfare system as provision of most suitable and efficient medical care and healthcare system, supported with childcare, housing, education, job training, proper job development and employment schemes along with recreation all help to prepare the society to be resilient enabled.

These resilience enablers help to guard against risk factors of social isolation and poverty. It helps to build social bonds that link individuals and organizations to resources. The enablers help to establish social norms that build more coherence and harmony among the community.

The enablers of resilience can be seen with youth tries to tackle social problems as being stakeholders of the community. In Such communities you'll find youth actively involved in different societies issues before, during and after its occurrence.

Cross-cultural studies have shown that youth participation in socio-economic tasks is another enabler associated with their heightened resilience awareness and belief. For example enabling youth self-esteem, enhanced moral development, increased political activism and the ability to create and maintain complex social relationships (Kurth-Schai, 1988).

Therefore, youth involvement in addressing their different social and economic problems helps to reinforce their resilience.

Another signs of resilience enabler shows in raising the capacity to make choices and enact them in the world. Resilient people have a sense of control over their destiny; resilient communities fully engage their citizens in decision-making. Once both people and community have the capacity to adapt and thrive in the face of sudden changes we'll have focused empowerment that would help to cope with all type of crises.

Examples of Resilience

Mexican Local Government suffer from lack of legitimacy and institutional weakness which lead to public administrations performing in discretionary ways. Lacks in regulation, continuation and systematization of activities lead to miss understanding of the meaning of innovation in the government.

Observation of initiatives taking part in the Government and Local Management Award gives evidence to believe that Mexican municipalities with low levels of social exclusion (presumably with higher institutional development) have more appropriate institutional characteristics for successfully implementing innovation as a tool for public service improvement. And, on the contrary, poorly developed Mexican municipalities find more difficulties to achieve improvement and development through innovation. Observation of initiatives also yields an important conclusion: Innovation can be of special benefit for poorly developed municipalities when it is addressed to strengthen the institutional founding of local governments.

Resilience economy practices would help to overcome deficiencies in Mexican local governments concerning to innovation development. It would create a culture that doesn't fear failure and overcome the patrimonialistic values of incapacity (or unwillingness) of the Mexican to bear successful reforms and innovation. Through RE practices patrimonialism as a tradition would be minimised where the discretionary authority and power in local regions that was figured during the Spanish colony.

Creating the Resilient Mindset

The most important enabler that defines success and failure of any coming resilience based socio-economy is the resilient mindset. However, creating the resilient mindset is not an easy task.

Resilient mindset doesn't happen by coincidence, it needs practices and experiences that are based on human-centred design and research. Through human centred research we can discover the humanity in our organisations and communities. Through this focus on discovering the human side of us we are actually designing unique products/services that are transformational and bring in differentiated solutions that fits seamlessly into people's lives and develop the critical mindsets.

Resilient mindset is like design researcher mindset they both aren't looking to finding proof but finding inspiration. The resilient mindset belief that the small fascinating details that enhance resilience spirit and help to build the cohesive story of is impossible to capture with normal quantitative research. Therefore the resilient mindset is more biased to qualitative research that help the organisations to unlock its inspiration through discovering opportunities that they may not have anticipated or even thought about before.

Running after numbers does not only distracts the mindset but also consumes time. The resilient mindset leads to design researches that help for find unique and inspiring discoveries.

With resilient mindset we can build insights and we can test whether it is right or wrong. We can through it look for interesting anecdotal stories since these insights serves to provide the inspiration we need to design something transformational.

Through the products/services that the resilient mindset creates, we would have people who would ultimately use the same story and share a latent need in relevance to resilience hidden inside them. Through resilient insights we can bring more resilient ideas that would help to measure the outer world.

Resilient mindset have the capacity to look beyond the things that are happening or requested now. Resilient mindset is very selective in choosing which problem to work on. As the worst thing we can do in resilience is to try to solve the wrong problem. In resilience we need a mindset that is proactive in addressing the business needs and find out what lacks the depth of understanding that causes conflicts and an unnecessary tensions.

The resilience driven mindset would focus on what type of resilience we need to address to every type of challenge. Or how can we use the available resilience to create more stable socio-economy. Or how we improve the design to meet pre-existing constraints. The resilient mindset focus on a type of design process that ends up on designing for better resilience.

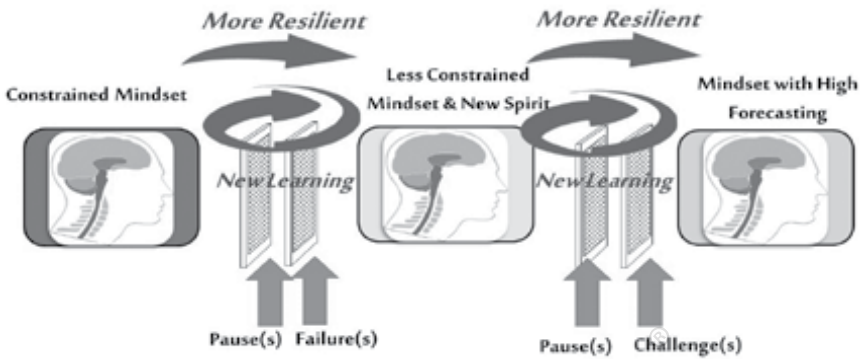
With resilience mindset we would ensure that the right idea is properly pursued in a way that it would positively influence people's lives specially in this complicated world. Therefore, resilient mindset doesn't loss its focus with amount of data, but rather establish resilience engineering practices that enhance the wider understanding of what could be.

However, adopting resilient mindset can be uncomfortable for many people, but this exercise alone enhance our understanding what type of design needed. The most obvious project solution that customers want is finding solutions that are going to truly resonate and get a ahead of competitors resilience capability.

Resilient mindset work for building philosophical game that would bring along investigators, digging through human stories to solve the mystery and unlock the meaning behind complexity.

Thus with resilient mindset we can take pauses and failures and pauses and challenges in the resilience journey. The more we produce resilience during the journey of taking pauses the more we have mindset that is less constrained and with new spirit. At the final stage we can build a mindset with high forecasting capability. This is illustrated in Figure (4-1).

Figure (4-1) Illustration of the role of Natural and Artificial Pauses that enhance the resilient mindset.



Examples of Resilience

Professor Majed El-Farra (2016) conducted a detailed study on the economic characteristics that are needed for resilience economy in Palestine today. El-Farra seen that Palestine, because of its socio-political instability that affected all the type of life in Gaza Strip and lead to its siege and closures suffer a unique socio-economic problems that increased it unemployment, poverty rate escalation therefore it needs different type of inspiration entrepreneurial resilient economy to match it realised needs.

El-Farra reported that in 2013, unemployment rate in Palestine reached 23.4% (16.8% in the West Bank and more than 32.6% in the Gaza Strip). In addition, unemployment rate in Palestine in 2013 was higher among young people, where it reached 41% for the age group 15-24 years (64.7% for females and 36.9% for males). Furthermore, unemployment among individuals with intermediate diploma or higher was 30.2%. Since then till 2016 the situation in Gaza Strip gone even worse. For example the official statistics of unemployment rate in Gaza reached 43.9% compared with 17.7% in the West Bank (Palestinian average unemployment rate 26.9%). The situation in Gaza has been deteriorated after the 2014war, which was waged on Gaza by the Israel.

Additionally, there is a significant difference in the level of per capita income in the West Bank and Gaza Strip, where it was \$3650 and \$1700 respectively in year 2013. The differences in the two territories reflect a significant gap in the income per capita, level of employment and as a result level of poverty which all came in favor of West Bank.

Gaza Strip and Palestine need not only capital, skilled labour or land but rather resilient entrepreneurial spirit that can seize minute opportunities and bring all necessary resources and lessons of challenges together to transform a business concept into a new success venture. Thus, promoting entrepreneurship is widely perceived to be a crucial resilience economy policy to increase employment, economic development and reduce poverty.

Entrepreneurship education therefore is more needed in Gaza Strip to create the resilience economy needed. However we believe that learning methods should be beyond action learning, internships, case studies, workshops, lectures and class-discussions and business simulations, it rather should include actual startups even at High Schools. This would mitigate the current high unemployment rate specially among young age and graduates where the majority of students and graduates come from low income families.

Practices of Resilience Economy

Practices of resilience based economy depends on the amount of discovering our intrinsic powers which begins with choosing to be resilient. In large part, resilience requires leaders to take care of business—and themselves—while taking action in new realities (Allison & Reeves, 2011).

Resilience economy depends on the physically, emotional, spiritual and intellectual practices that the organisation show in relevance to the work demands, as without having the balance of all of them we won't have the sustainable state of mind (Reeves & Allison, 2009, 2010).

Inclusiveness practices is very related to resilience thrive where power would be distributed in order explore more opportunities thus become “extractive” serving to concentrate power and opportunity in the hands of a few.

With resilience practices clear feedbacks we could help to enable changes to be detected. With such feedbacks the consequences of resilience actions are immediately apparent to avoid repetition of mistakes and improve communication.

Studies shows the resilience is about balance of utilising resources. For example if a sea community overexploit its fish stock, the stock might collapse and people would be more vulnerable for hunger in case of any sea pollution or disaster.

A final important resilient practice is the responses to changing conditions. With focus on innovation, where the organisation would focus on the capacity of testing new things we can discover many resilient qualities within the organisation. Therefore, many leading companies as Google would have diversify its human capital in order to generate novelty not only uniformity in its products/services.

An inclusive society that reserves its civic and human resources would be better equipped to engage in creativity and development of its citizens. Even the practice of giving feedbacks to concerned parties provide both timely and accurate information about the changing conditions, which is essential for appropriate innovation that sustain resilience.

Examples of Resilience

There are many resilience economy projects can be done to minimise the suffering of the Palestinian. In Sep (2016) Journal of Inspiration Economy published a paper titled “Internet banking and ATMs applications; In context of Palestinian economy” (Sabri, Abulabn, Hanyia, 2016) from Birzeit University in Palestine. The paper tackled an important issue on about opportunities for the Palestine banks that can bring better resilience economy results to the Palestinian economy.

The Palestine banks carries unique merits due to the none availability of national currency and thus saving habits and business trading and transactions, deposits, saving and wealth measurement, budget and tax bases, using four currencies including NIS, JD, \$ and Euro, this situation create a problem related to how to manage the banks' treasuries at the end of each day (Sabri, Hanyia, and AbuLuban, 2015 and 2016). In addition, the share of each of the various currencies in the Palestinian economy is different based on financial transactions as well as types of goods and services. For example, in the case of banking deposits, US\$ and JD are the most used as saving currencies, in case of loans, US\$ and NIS are the most used in getting loans from the official banking system, for checks and business transactions, the NIS is the most used among the used currencies based on the official banking statistic (PMA, 2010a). Therefore this non-national currency status leads to various problems and has negative aspects on the financial sector, due to the fact that the changes in the exchange rates between the various different currencies are so significant.

Professor Sabri team aimed to point out the possibility for more resilience through internet-banking, ATMs and other electronic money instruments based on the Palestinian using multi currencies economy. The study included 12 Palestinian banks. The team found that all Palestinian banks have ATM machines, which deals with three currencies including JD, NIS, and USD with various transactions, while about a half of the banks issue credit cards to their clients, and offer internet inquires and internet transactions. With the exception of ATM, the majority of the banking clients don't know about the existing possibilities of E- banking channels available in their banks and/ or how to use it. The banking directors and staff do not see much increase in using the E- banking transactions by their clients, in spite of the new adopted electronic instruments by the majority of banks in the last decade. Therefore, an implementation of such studies could and should help such constrained economy to be more resilient.

Resilience Economy Production Mechanisms

Resilience economy focus on sustained production mechanisms. This production mechanism help to reduce asset losses. The RE design targets to minimise the mechanism of disruption in the supply-chain by having dual system designs. The inputs of any production is designed to ensure that its sources are not directly affected by any means.

The RE mechanism deal with the impact of reduced demand that comes with reduced income. RE mechanisms deals with consequences of economic growth that brings in changes in risk and risk perceptions, including over-reactions, which can drive investors and entrepreneurs away from participating in real economy development.

The RE mechanism help to increase the production and the reconstruction needed to positively stimulate the economy. With self-sufficiency program built on RE mechanism we can increase household production and also create more awareness about resource utilisation.

RE mechanisms help countries and even organisations to improve their levels of performance to focus on well-being outcomes. The mechanisms help to focus on variety of factors beyond GDP which help to discover hidden opportunities of economic development. Through such mechanisms we learn “what works” towards better resilience that would sustain well-being outcomes.

Resilience economy mechanism of production goes along with OECD struggle for wellbeing. This what made the OECD countries to have not only the top third of OECD countries to have the highest GDP per capita in the world. Luxembourg, Norway, Switzerland, the United States, the Netherlands, Ireland, Austria, Australia, Sweden, Denmark, Germany and Canada. The resilience economy practices is what made also the outcomes of these countries tend to be particularly strong in terms of earnings. Because of RE mechanism production more than half of all high-GDP countries have strengths in providing social welfare net which includes social, healthcare and employment.

RE production mechanism is not about creating high GDP per capita, guarantee a high performance across all well-being indicators by enhancing for example the perception of people on how they look at their role in life thus enhancing their understanding of what means job security.

RE production mechanisms enhances the way we look at working hours. This understand can be see in cultures as in Iceland, Belgium, Finland, the United Kingdom, France, Japan, New Zealand, Italy, Spain and Korea. Also, RE production mechanisms focuses on the quality of ageing process, life-course changes. It is a mechanism that works on the social role and social relationships status.

Due to the importance of education to mindset and resilience younger generation of working-age adults in OECD countries are much more likely to have completed higher education. This also built a new culture in certain OECD countries where youth would be more likely feel the importance of close friendships. Studies shows for example that 93% of people aged 15-29 in OECD countries report having someone they can count on. This not only increases the RE productivity but also enhances the subjective well-being outcomes.

Resilient communities would have signals and develop institutions and manage common the mechanism sustainability. With critical feedback loops mechanisms being accelerated to the maximum.

Last but not least women found to play an important role in RE production mechanism. The movement of women today toward the labour market minimised her long-term unemployment, or unpaid work or low personal security. In RE productive economy gender gap differences would be to eliminated with clear resilient mechanisms and efforts.

Examples of Resilience

The French researchers Goncalves and Zeroul published a research in Sep (2016) about the importance of diversity in short food supply chains. In researchers shown the importance of having resilience economy practices

due to the increase in the urban population that raises many challenges out of which is supplying food to urban areas. The food needs of urban areas can be satisfied by a variety of logistics chains, but they do not all generate the same environmental externalities. We no longer just need to transport food to feed urban populations, we also need to be able to limit the adverse impacts in urban areas of doing so.

Short food supply chains appear to be a worthwhile possibility. The economic, social and environmental impacts of these supply chains are deemed to be beneficial, and they are advocated by a considerable number of political players, particularly in Europe. However, Goncalves and Zeroul (2016) seen that the impacts of short supply chains are not always as good as expected, particularly in environmental terms.

Since the effects of short food supply chains are still poorly understood, players who operate in a variety of short supply chains need to be evaluated. Understanding these chains' from environmental impact would help to design policies that promote sustainable and innovative solutions.

The authors found that there is a need to limit the adverse impacts of freight transport in urban areas in the case of all distribution channels, short food supply chains included. To achieve this, public policies advocate measures to optimise and rationalise logistics, particularly in very dense urban areas, with a view to enhancing the positive impacts of short food supply chains.

The authors found that there the supply chains comes in different forms and are organised very differently. Therefore the types of production priorities differ from one chain to another. The types of food production provide frameworks for better understanding the diversity of the players' main priorities on the basis of the nature of the supply chain. They allow us to understand to some extent why the players implement one strategy rather than another in order to meet these priorities. The demands that are intrinsic to some chains – permanent availability of products, highly competitive prices, desire to maximise customer satisfaction in order to foster loyalty – help to explain certain negative or potentially negative impacts which would lead to be more resilient to any coming food crisis.

Preparing the Resilience Economy Expert

The resilience economy expert should focus on understanding how to evaluate the well-being strengths and weaknesses, and that every country has areas where it performs well or poorly. One striking finding is just how different the well-being outcomes in different dimensions can be for countries with very similar levels of GDP per capita – underlining the importance of giving more attention to the many factors *beyond GDP* that shape a country's well-being experiences.

Resilience expert would look for consistency in GDP development assessing the well-being; referring to summary outcomes rather than inputs, or outputs and to their quality and availability (e.g. being based on agreed definitions and comparable methods of data collection; being produced with reasonable frequency and timeliness and being available for the large majority of OECD countries).

Resilience economy experts works usually on the social connections, the civic engagement and the subjective well-being that provide the multidimensional picture of resilient socio-economy. RE experts explore and build the missing resilience data that particularly affect the limited country resources.

Examples of Resilience

Palestine suffers from many obstacles that prevent its people and community to develop suitable innovative capabilities specially in service sector. Morrar and AbdulHadi (2016) from An-Najah National University in Napels Palestine published a paper to discuss these obstacles. A cross sectional data of 263 Palestinian firms where used to estimate the relationship between obstacles of innovation and the ability of firms to innovate.

Results show that the innovation obstacles are hampering the propensity of Palestinian firms to innovate in different levels. Considering the different types of innovation that were assessed in this study, the cost factor, process of innovation, marketing innovation, followed by the demand factor due to weak competition and uncertainty are the main concerns.

This study finds an evidence that most of the obstacles of innovation restrict the innovation capabilities. The cost factor (including lack of funds and lack of finance from outside the firm and the increasing of innovation cost) is the factor with the greatest negative impact on the four types of innovation output (product and process innovation as well as the organizational and marketing innovation), followed by the demand factor which was reflected by the weak competition and uncertainty and impact of the prior innovation.

The studies recommends that Palestinian Authority could create a better enabling environment through facilitating the import of innovation from foreign countries and also encouraging the companies for more innovation through incentives and more safe space with minimal risks from their side. Firms could create partnership for technological innovation that could minimize the risk and maximize the impact. Morrar and AbdulHadi (2016) concluded by the need for creating more awareness of innovation contribution to the organisational performance and economy which will attract the investors and different actors to address the challenges and tackle these obstacles.

Barriers to Resilience Enablers

There are many barriers to resilience based economy specially in the presence of greedy, claimed to be competitive, capital economy. These barriers work to either hinder resilience economy or delay its presence in times of need.

One of the earliest and toughest barriers to resilience based economy is bureaucracy. With bureaucracy percentage of corruption in reality grows. The other barrier is when strategic economic plans are not clear and when there is no apparent plans regarding long-term sustainability.

The other blockage and resilience economy barrier is when organisations are being too busy with its current production and not having time to focus towards the future. Failure to learn or capture opportunities of learning

also would hinder all the type of approaches towards local economic resilience.

When economies doesn't have central government guidance or permissive enough to emphasis long-term economic sustainability or help for rapid productivity gains then it would be considered to have barriers towards any economic resilience.

Resilience Story

Resilience in social inequality is very important to large cities as Mumbai in India, where very rich live in spaces near the very poor. Lankao, Boulder and Sperling (2016) are a team researchers whom presented such cases vulnerability and differentiated human capacities in relevance to responding to heat waves, floods and other hazards and stresses depending on differences in socioeconomic status. Lanko team found that vulnerability and resilience in Mumbai spring from the social inequality, the differential access to resources, the infrastructure and political power and from the weak, ineffective or lacking social security, planning and early warning systems.

The socioeconomic status created variation in households therefore resilience variables are fundamental to understanding how to enhance the capacity enhancement of the people under poverty in Mumbai. Lanko team seen that reliable measurement of interactions between inequality and resilience is proven to be difficult, particularly in urban areas of Mumbai where people from low and middle income lives.

Democracy & Resilience Economy

Economic democracy is very important to the development of resilience based economy. As with economic democracy we can see different accumulation of wealth in the society, without relying being affected by scarcity mindset, or sacrificing freedom of choice.

Economic democracy tries also to address what capital economy been trying to do in both addressing the basic needs of all citizens (macroeconomic needs) while securing also freedom of choice (microeconomic needs). Economic democracy tries to address both the basic and non-basic needs. While remuneration in capital economy would be determined to address the basic needs, and according to degree of effort for non-basic needs, in democratic economy meeting basic needs is a fundamental human right and it would come with the respect of the values that would distinguish the core of this type of economy, i.e. respect for resilience in resilience based economy.

Since resilience economy is a participatory economy which guarantees the basic needs for the public goods through spreading of resilient practices. Therefore resilience economy is only feasible if the participants are ready to be resilient.

With resilience economy we can assume the most basic requirement for societal long term prosperity and resilience. Therefore reform agendas is needed to critique the existing systems in order to prepare towards discovering the human productive potential, that would help to maintain socio-economic resilience.

Resilience Story

Hasan and Beena (2016) published a research about the importance of understanding the Indian consumer behaviour through neuromarketing, specially with the fast development of India middle class and as largest stable emerging economy in the world.

Neuromarketing as concept was developed by psychologists at Harvard University in 1990. But the word “Neuromarketing” was coined by Ale Smidts in 2002. Neuromarketing technology is based on a model whereby 90 percent of all purchasing decisions are made subconsciously. Neuromarketing addresses problems relevant to marketing with methods and insights from brain research and it helps marketers to generate deeper insights into consumer behaviour, thus discover their desires and expectations; i.e. whether their decisions comes from mental, emotional and/or instinctive experience.

The researchers analysed how neuromarketing tools would affect the resilience of consumer behaviour. The paper discussed how advertising, pricing, branding and would influence the Indian consumer buying decision process. The results show that understanding how customers think, feel and respond to marketers offerings is difficult to understand. The study shows that generating customers insights are fast, inexpensive and offer tremendous value for marketers.

Customers are assumed to be resilient and to tell marketers what they are looking for; in turn, marketers are assumed to be able to ask the right questions to customers, then code, analyze, and interpret the data correctly, all before generating actionable insights. Hasan and Beena (2016) confirmed that the shortcomings with traditional marketing process comes from the validity of such questions which can be severely compromised by the respondents imperfect memory and the misinterpretation of highly sensitive questions.

Through neuromarketing we can establish many resilience economy practices since we can influence the consumers' sensor motor, cognitive, and affective response to a specific marketing stimuli. Companies such as Google use neuromarketing to measure consumer thoughts on their advertisements or products. According to the Neuromarketers people cannot fully articulate their preferences when asked to express them explicitly, and that consumers' brains contain hidden information about their true preferences. Such hidden information could, in theory, be used to influence their buying behaviour, so that we can improve product design and increase sales. By studying the brain activity, neuromarketing combines the techniques of neuroscience and clinical psychology, in order to find out how customers react to prices, brands and advertisements. If this study applied in an Indian market it would influence long stagnant behaviour specially for Indian middle class which are highly emerging to be the largest buying power in the world.

Resilience Ripple Effect Mechanism

Humans need to be trained on the principles of resilience in any time in history and during any civilisation and at different socio-economic situations, in order not to live more of animals life. In order to reach better this level of resilience. Hence, scientists studied more and more different resilience mechanisms that increase the ripple effect of dealing with challenges and situations. Research discover today more and more that resilience need a specific mindset that would be able to build the needed ripple effect.

There are two type of ripple effect, both forward and backward ones. The forward ripple-effects arise when the impact propagates from suppliers to clients, i.e. when a business can't produce and thus cannot provide its clients with inputs needed for their own production then the organisation or the society would be considered to have low positive ripple effect.

During the impact of disasters the supply chains of the oanisation or the society would be the first thing to be affected. For example, during the different repeated earthquakes in Japan wide consequences on automobile production occurs. This disrupted the automobile supplies up to 70% in different emerging economy countries.

Reinvesting in relationships after a ripple effect help to construct new hopes and dreams; revising the resilience plans, aspiration for find new purposes from the tragic loss. Flexibility to adapt and re-stabilise chaotic, unreliable, leaderless restore structure, routines, predictability help to manage the functioning lose.

Also, we should study the backward ripple-effects which arise when the impact propagates from clients to suppliers, i.e. when a business cannot produce, and thus reduces its demand to its suppliers. I.e. It have the capability to shift suddenly from (Supply vs. Demand) to (Capacity vs. Demand) which reflects the ability of lean thinking and pull thinking "levelling". I.e. we re-level the supply (from the suppliers) vs. the demand (from the customers). By reducing our own wastage through resilience adaptation and improving designs could raise the capacity (from us) vs. the demand (from customers).

Resilience Story

Lessons from USA Oklahoma City 1995 Bombing shows how important is resilience to any socio-economy. Oklahoma City community response showed the importance of a resilient community. After the immediate chaos and sufferings, local people came together in recovery initiatives, collaborating in outreach and organisational efforts. Thousands of professionals, volunteers, and rescue workers joined forces for effective crisis intervention for those in need and a strong support system for responders.

One notable program was the creation of the Compassion Center in a local church, where hundreds of families gathered for information about their loved ones. A multiagency effort was quickly organized to provide accurate information about rescue efforts, to facilitate identification, and to offer emotional support. The center coordinated multiple emergency and community organizations to respond to the many needs of survivors. Mental health services provided a safe environment for families to process information in a respectful way, to share their suffering, and to regain a sense of order, predictability, and structure in their lives. This practice helped to foster the city unity and healing. They channelled grief and terror into meaningful and life-affirming activities and instilled faith in the long healing process.

Sharing Resilience during Traumatic Disasters

Traumatic loss and major disasters help to strengthen family and community resilience core principles and its values. In order to build a family and/or a community resilience and push them towards recovery dual system design is expected to experience and share strengths and resources in relational networks which foster healing and post-traumatic growth and development. Ground-breaking studies of World War II showed that countries that managed to implement sharing resilience economy practices managed to overcome serious distress as anxiety, depression and violence.

In learning and responding empathically to traumatic experiences organisations can keep functioning even in complex situations. With these experiences new opportunities and possibilities emerge. This found to develop deeper relationships and greater compassion for others thus help the feeling to be more ready for meeting life challenges.

Resilient practice can facilitate healing by encouraging individuals, families, and communities to actively engage in processes as shared acknowledgment of reality of traumatic event, losses of clarification of facts, circumstances and ambiguities.

Studies show that those communities or organisations or even sometime entrepreneurs who share experiences of loss and survivorship can improve the organisation/society attributes thus improve the emotional expression and spirituality. Re-organising the community after disasters help to improve the survivors well-being and to re-stabilise and foster continuity for better community.

Case studies of groups recovery shows that such resilience sharing has helped many cope with socio-economic challenges and turn it into developments and actually help to transform experiences from grief to a focused developmental economy.

Sharing protective mechanism directly or indirectly, after traumatic disaster, positively modifies an organisation or a society response capacity towards adaptive outcomes. Protective mechanisms may promote adaptive processes or mitigate negative processes such as strains on the country due to high middle class and youth migration for example, such the case in eastern Europe, for example.

Conceptually, protective mechanisms may operate differentially to reduce the impact of risk, reduce or break negative chain reactions, establish and maintain self-efficacy, or open up new opportunities. Protective mechanisms can occur with or without external intervention since they are factors, which, in certain circumstances, are associated with adaptive functioning in the face of adversity. When referring to a protective construct in the context of resilience, the term mechanism is preferred over factor,

although some use these terms interchangeably. The mechanisms after traumatic disasters captures the process of resilience and indicates that no one factor by itself is sufficient to produce an adaptive outcome.

As the socio-economy needs today more protective processes that are particularly adaptive in the face of a given risk, organisations need to work also on improving the general capacity to thrive in challenging circumstances. For example, in education, the well-known protective mechanism found to use multi-disciplined teaching approaches that are built around protective positive processes that support the educational outcomes through sustained engagement and holistic support.

With protective educational resilience mechanisms we can fight for example smoking and alcohol in schools resilience. We can even draw on similar sources of resilience to cope with rising bad habits or loss of values. Through such mechanism we realise self-efficacy and supportive relationships to aid positive adaptation to sport instead of gambling for example among adolescents in certain communities. Such protective mechanisms then can help address problems facing socio-economic stability as immigration, acculturation, homelessness and socioeconomic adversity, as confirmed by Chen and Miller (2012).

Resilience Story

Think. Eat. Drink. (T.E.D) is a resilience economy driven project that aims to deliver high-quality catering that doesn't cost the Earth. Bethany Peterson whom overarching mission is to change the hospitality industry for the future of the planet without the sacrifice of style, quality, taste or customers' experience. (T.E.D) gets youngsters back into the kitchen and gives them an opportunity. (T.E.D) also built the first urban eco-friendly restaurant. At that time I thought it would be great to set up a membership scheme for a vetted supply chain for the food and beverage industry because nobody's done it and there's a lot of green-washing out there. Every element of the restaurant from coffee, fruit, vegetables, drinks, list to of interiors has an environmental or ethical stance.

(T.E.D) restaurants targets to inspires people to say “Wake up people!” We need to have a certain amount of respect about where our food and drink are coming from because if we’re not careful it’s all going to implode, isn’t it?!

(T.E.D) message to its customers: Just have respect and responsibility. Do your research. We can give a resilient service that doesn’t cost the earth. Take extra day researching your supply chain, because it’s that supply chain that’s going to make a difference.

For more details on the Story please:

<https://www.positive.news/category/economics/good-business/>

Social Responsibility as RE enabler

Many businesses of all sizes and sectors are engaged today in corporate social responsibility (CSR). CSR proven over the years that it have a great role to play in resilience economy.

CSR help the economy to perform in a wider social and community impact. Through CSR help resilience economy since it has a direct social benefit, bridging the gap between the commercial and social spheres and play as an indicator of the extent to which businesses are invested and embedded in a local community. The diversity and the collective efforts that CSR bring is usually made up from representatives from both the commercial and public spheres, and often both will separately be advancing social and community goals.

With CSR we can align economic and social challenges facing many areas and build local economic resilience. The CSR team also have opportunities to promote social inclusion and to align economic and social strategies. With CSR many resilience essential public policies can be improved such as healthcare, education, energy, thus reducing poverty and inequality.

The interconnection between social inclusion and economic resilience usually help to address the CSR plan and promote practises that promote social diversity, besides identifying poverty and inequality as an economic strategy. CSR plans also demonstrate its role in building a resilient mind to long-term investments with economic priorities that seek to promote business uptake. Through CSR we can keeping ahead of developments through research that targets to build resilience and help businesses to deal with different challenges in the global economy.

Resilience Story

UK's bee population is in trouble, having nearly halved over the last 25 years. Life would be pretty grim without bees. Of the 100 crops which feed 90 percent of the world, bees pollinate 70 percent of them. For example, our supermarkets would have half of the food they currently have. There would also be a lot of businesses going bankrupt, such as small and large scale beekeepers or companies that use beeswax and honey in cosmetics. There are two arms of the bee crisis – the decline in vitality of ‘wild’ bees (solitary bees, bumblebees and ‘wild’ honeybees) and the decline of managed honeybee colonies. Both bees suffer the same environmental conditions: insecticides, lack of flowers and pests. Conventional beekeeping today reflects the notion that nature needs to be controlled. Conversely, more bee-centric beekeepers allow bees to exist and function as nature intended.

“Bee the Change”, is a social enterprise in Bristol that is working to tackle the decline of Bees with a combination mentoring and educational courses for all ages. The project aims to tackle the current pollination crisis by reshaping what we think of as ‘beekeeping’ setting up communally-run beehives around the city in order to connect people with nature by teaching them how to live sustainably. “Bee the Change”, works to increase the forage and habitat for wild pollinators by increasing edible food in public spaces. Alongside these activities, we host talks and workshops as well as running school lessons, setting up bee hotels and managing the adoption of beehives.

“Bee the Change”, is working on sustainable beekeeping as a key to reversing the pollinator decline.

For more details on the Story please:

<https://www.positive.news/category/economics/good-business/>

Resilient Leaders as RE Enablers

Be it government leaders, society change leader, radical change innovators and even role model entrepreneurs, or philanthropists all of them need to resilient in order to uniquely resilient in order to create a sustain legacy.

Let me take the case of Mahathir Mohamed the ex-prime minister of Malaysia as a reference for government leaders whom used the concept of resilience and resilience economy to re-build the Malay people and create the visualised Malaysia of 2020. The resilience of Mahathir is reflected in his clear set goals and persistence to create them with and through his same people that opposed change. As many resilient leaders he managed to set clear yet simple goals achieved through cascading initiative that make a mosaics when linked with each other. This visualisation of the mosaic kept Mahathir initiatives not only realised but build a a purposefulness of co-existence for Malaysians despite their diverse backgrounds. Living this collective results created the new Malaysia that we know today, despite its latest government problems that came post Mahathir era. I.e. as a country is continued in general to move forward. The resilience mindset of Mahathir inspired his people to be better citizens targeting to do great things.

Resilient leadership create reference models that exhibit specific traits that collectively very hard to copy. Resilience created by such leaders influence the economy in different ways. These leaders build traits full of confidence, purposefulness and social adaptability. Resilient leaders tend to be confident in their own abilities and focus on what they do well rather than what they struggle with. Resilient leaders have a clear sense of purpose. They know “why” they exist in this life. For that they

overcome all the types of socio-economic obstacles. Such leaders influence the economy through understanding how to deal with setbacks staying focused on the way a heading. The resilience of these leaders comes from their persistence and their ability to solving problems. In addition, resilient people place self-nurturing as a priority in their lives. They take time out, to renew, refresh, relax and do the things they love. Is this a staple in your own life? It's amazing just how many people go about their lives constantly giving, helping, contributing...and yet they never take pause to recharge. It's no wonder why a number of individuals report feeling overly stressed and over-worked in their lives. It's gotten to the point where it's almost an epidemic. Examine your own weekly schedule and ask yourself if you're devoting enough time to nourishing mind, body, and soul. If not, make some necessary adjustments and pay mind to how nurturing yourself helps you to feel more supported.

Resilience Story

The most famous proponent and contributor of resilient leadership school of thought is the Chinese Li Si School, or called sometimes “Han Fei”. Han Fei believed that a ruler should govern his subjects using a triangle model made of: Fǎ: Law or principle. Where all people under the ruler are equal before the law. Shù: Method, tactic or art. These should not be publicized, but used by the ruler and if successfully enforced, even a weak ruler will be strong. Shì: Legitimacy or power. It is the position of the ruler, not the ruler himself that holds the power.

These thoughts meant to strengthen leadership and reinforce adherence to the law. The Chinese leadership fully emerged during the “Warring States Period” and preceding “Spring and Autumn Period”, which was marked by frequent violence and wars. This school believed that the individual had no legitimate civil rights or any personal freedom, but to strengthen the ruler. It considered the people and their actions are evil and foolish. Nevertheless, it allowed common people to gain noble rank on merit. This leadership school played a very important role in King Zhuang Xiang, of Qin's Dynasty, to rise to power. It could be called a “Realpolitik” school. It was discredited, later on, as it focused on the use

of force. It could be compared with philosophy of Machiavelli (1469–1527) the “Ends Justify the Means”. However, some of the ideas by the Legalist School were revived, now and then, particularly when “Mao Zedong” approved some of its methods. (Galal, 2015)

Crowd Funding as RE Enabler

The term “crowdfunding” describes a resilient collaborative process of financial support from a large group of individuals, usually via the internet, to fund some projects, causes and/or businesses, bypassing the traditional mediators be it investors, sponsors, or even NGOs or Government Entities. Initially crowdfunding started to address a gap for an effective vehicle for people with creative projects or great causes to raise money and fund their goals. 1st generation crowdfunding sites was based on supporting resilience economy since they were meant to create campaign-centric donation models that create a transactional relationship between the supporters and project owners.

As time based over the last few years crowdfunding evolved to be more of business driven crowdfunding model, by adding an element of social networking and community building for entrepreneurs, small business owners, investors, and industry leaders. Today business Crowdfunding is about creating high value, lasting relationships with a network of supporters that help grow a business throughout its life cycle.

It is based on contribution funding that build real relationships, get long-term investor and community support.

Growing a business takes more than a flashy pitch. It’s about building relationships that lead to long-term growth. Our powerful social network will help build a community of support that leads to more than funding – it will connect you with people, tools and resources to grow your company at every stage of its life cycle. Funding and investment happen best when it’s done among people who know each other.

Resilience Story

Nuri spent his life helping climbers from all over the world hike the mountains of Nepal. When the earthquake hit Nepal in April 2015, Nuri was helping Don Bowie and his team climb the Annapurna Circuit. News spread fast of hundreds of villages flattened or decimated by the earthquake, villages nestled deep in the mountains that were cut off from any supplies. Bowie's team decided to remain in Nepal and help where they could. Though Nuri's own home had been destroyed and he longed to be with his family, he chose to stay and join Bowie's team in their efforts to help the World Food Programme provide humanitarian relief. The Larke Pass is a passageway that used to provide access to these isolated villages before it was cut off by a landslide. Nuri and the crew worked for three weeks to get the Larke Pass open for supplies, then prepared mules for the long journey to bring WFP food to remote villages. The team trekked through cold temperatures and low oxygen — and 5,100 m altitude! — to reach village after village. They were completely self-sufficient, carrying their own food, equipment, and medical supplies on mules.

With every stop on the journey, the team assessed the needs of the community and relayed them via satellite phone back to WFP's operations team. Nuri is one of thousands of people doing their part to help Nepal following its devastating tragedy.

For more details on the Story please:

<https://www.positive.news/category/economics/good-business/>

Responsible Business as RE Enabler

A diverse range of responsible businesses and enterprises in terms of size, model (social, private) and the goods and services produced that provide good jobs (in terms of meaningful work, progression, remuneration), respond to local demand, and support a balanced regional economy.

High levels of diversity in the economy help to enhance services in relevance to the vulnerable people. In RE responsible businesses focus on the areas of strengths, supporting key sectors thus fostering productive relationships between businesses and local communities and schools.

Responsible businesses would dedicate its local assets including its attitudes and knowledge capability to serve within the community and access to fair financial services. The responsible business would access and control the productive resources thus managing growth, development and quality; in relevance to poor connections between economic development that move beyond the traditional economic strategies.

Responsible business enhance the strength of civic engagement thus eliminating poor accountability in relation to economic planning and strategy. Such businesses help resilience in different new ways including enhancing the local governance structures, and accountability to local citizens through enhancing the holistic understanding of economics, culture and ecological interconnections that link communities and establish the necessary collaborations between them.

If we have spread of responsible business we can have detailed understanding of the interactions between its scope and the global economy, thus establish the type of interventions that would help local firms improve their export potential. Almost all threats to resilience economy would be eliminated if we have comprehensive understanding of the risks faced through responsible business practices. Many of these economies don't have a well-established unemployment and where solutions to it were proposed these were not well integrated into their plans.

Resilience Story

Currently just 10-15 percent of children in care in the UK achieve five A*-C grades at GCSE. Paul Singh established a social enterprise, Equal Education, is working to help improve the outcomes of children in care. Paul and his team focus on providing low achievers one-to-one tuition to improve their educational outcomes and give them better chances in

life. Paul team try to shift the bad school results and improve GCSE attainment which is on average 45-50 per cent lower than their peers.

Paul and his team also manage such Children till universities and organise with charities and science organisations – we try to connect these children to different programs. The project started with five voluntary tutors in 2012 and now have more than 100 working with more than ten councils. Paul plans now to send tutors to countries as India and Africa to take Equal Education worldwide. For more details on the Story please:

<https://www.positive.news/category/economics/good-business/>

Resilience and the Art of Balancing

The art of balancing or levelling is a Chinese concept. More and more, researchers are considering the balance to mental, not just physical, functioning. When we are balancing unstable pose, we learn how to focus faster and more efficiently.

Balancing during a problems often improve our mental energy. Learning balance is an ongoing practice. Duck (1999) mentioned about the importance of using transition management tools if organisations want to have a critical balance. The balance requires that every part of the organization system is considered when doing any development or change, to avoid any clash. Therefore many organization do a consistent process redesign, to maintain this balance.

Resilience Story

Khaled Farah is a first responder for the White Helmets in Syria's Civil Defence team. In the last five years, nearly 200,000 Syrians have lost their lives in the Syrian civil war, where civilians are targeted daily with bombs. Khaled is one of 2,697 volunteers, including more than 80 women, who risk their lives every day. On July 11, 2014, a barrel bomb

was dropped in the Ansari neighbourhood of Aleppo. Khaled arrived on the scene of the blast to help pull people out of the debris. He kept an eye on the sky, as a second bomb is often dropped to kill rescue workers. As the team pulled two families out of the debris, one of the mothers cried out desperately that her 2-week-old baby was missing. Khaled rested his head against the concrete and heard a baby crying. He called over his team and started digging through the rubble as gently as possible so as to keep the baby safe. They finally spotted the child, and using car jacks — the only tool at their disposal — they lifted the concrete slab to pull the baby out. Khaled recently visited Muhammad, the baby he saved from the rubble. Thanks to people like Khaled, over 22,000 lives have been saved. Yet the destruction of lives will continue until the world steps in to stop the bombing.

For more details on the Story please:

<https://www.positive.news/category/economics/good-business/>

Imagineering and RE Enabler

When we truly accept something we should not waste any efforts trying to resist it. In order to enhance our genuine acceptance to things we have to imagine it. The more we imagine the more we can divert strength focus on finding answers to what we consider challenges. Thinking and imagining how to solve a problem improve our position towards that problem.

When face problems without imagination we likely to fail in really doing something about it. Without imagination organisation get under great pressure and strain due to complexity seen in problem solving. Therefore, through practicing Imagineering we can establish more resilient mindset that would be more adaptable to problems and challenges.

Walt Disney was the first to use Imagineering in order to establish affective scenarios and also influence the mindset to be more resilient. Today this concept is used in designing and building Disney theme parks, resorts, cruise ships, and other entertainment venues at all levels of project development.

Imagineers are governed by a few key principles when developing new concepts and improving existing attractions. Often, new concepts and improvements are created to fulfil specific needs. Imagineers are known for returning to ideas for attractions. Disney land uses Imagineering to know their audience wants, not only their needs, thus meet their expectations. By raising their resilience in understanding their customers mindset and wearing their guests shoes they developed techniques that move the human factor to best status. They managed to experience the parks from the visitors experience and thus managed their expectation. This level of resilience made the leaders in Imagineering implementation today. This increase Disney ability to create better visual management that helped to minimise variations and diversity of their visitors and enhance communication between all stakeholders.

Walt Disney increased the resilience in every service design and process it delivered by avoiding contradictions to maintain identity, avoid irrelevance or contradicting elements. The resilience engineering in Walt Disney make the audience involved with the shows. The designs of the theme parks reflects this level of resilience that managed to bring highest level of active participation compared to passive entertainment and for a variety of visitors modes.

Resilience Story

Art of the show in Disney Land depends on the economies of resilience. Over the years, these shows has conceived a whole range of retail stores, galleries, and hotels that are designed to be experienced and to create and sustain a specific mood – for example, the mood of Disney's Contemporary Resort could be called “the hello futuristic optimism,” and it's readily apparent given the resort's A-frame structure, futuristic building techniques, modern décor, and the monorail gliding quietly through the lobby every few minutes. Together, these details combine to tell the story of the hotel.

When visiting a Disney Theme Park you go through a resilience thinking that pulls your mindset as if when it goes through storytelling. Extensive theming, atmosphere, and attention to detail are the hallmarks of the Disney experience. The mood is distinct and identifiable, the story made clear by details and props. Pirates of the Caribbean evokes a “rollicking buccaneer adventure,” according to Imagineering legend John Hench, whereas the Disney Cruise Line’s ships create an elegant seafaring atmosphere. Even the shops and restaurants within the theme parks tell stories. Every detail is carefully considered, from the menus to the names of the dishes to the Cast Members’ costumes. Disney parks are meant to be experienced through all senses – for example, as guests walk down Main Street, U.S.A. they are likely to smell freshly baked cookies, a small detail that enhances the story of turn-of-the-century, small-town America.

The stories of Disney theme parks is often told visually, i.e. it depends in resilience design that make the guests experience “The Art of the Show.” An example of this design is in the Disney Parks is Cinderella Castle in Magic Kingdom at Walt Disney World. The scale of architectural elements is much smaller in the upper reaches of the castle compared to the foundation, making it seem significantly taller than its actual height of 189 feet.

Capacity for Absorbing Shock

The level of capacity to absorb shocks towards a product/service determines how rigid the labour market that would bring an output in the wake of common shocks.

Biroli et al (2010) studied the relation of absorption and the capacity of economic resilience through the competitiveness channels across euro area countries. Biroli team found that excessive regulations in product and labour markets appear to make inflation differentials more persistent in the face of a common shock.

The OECD recently started to stream the processes of economic resilience starting with the capacity for absorbing shocks. Surveillance across OECD countries focused on the capability of identifying vulnerabilities to shocks and crises early on, since the capacity of absorbing shocks found to reduce the economic cost. Other researchers seen that the capacity for absorbing shocks compensates for early warning tool (Hermansen and Röhn 2015). Also at EU level there is an increased focus on improving resilience.

Therefore we can conclude that absorbing shocks requires a capacity for alternative shock identification methods and early identify and utilisation of economic well-functioning. i.e. Utilising the efficiency of labour and product market policies to enhance the ability to absorb shocks.

The quality of economic structures is also considered to be one of the most important shock absorption capacity mechanisms. The economic structures focus usually on capturing how labour and product markets work as well as how framework conditions are set, including the quality of government, or how the government interacts with the economy at large. Market monopoly and/or too much regulation could create the wrong incentives could hinder the swift response to adverse shocks.

RE Case Study- Resilience of Social Services

One of the most important needs for any society is to improve the “quality of life” of its most vulnerable people. A focus on improving the effectiveness of Social Development Programs in Bahrain was approached through (Inspiration Labs). Different projects, such as inspiring the outcomes of (Elderly Care Services) and enhancing the (intrinsic powers of NGOs) in society, have helped to improve the overall management and budgets of social development & welfare services delivered by the Government of Bahrain. Other projects as improving the capacity of ‘Productive Families’ program, making it more self-independent and attractive helped to improve the competitiveness of Micro-Start Families.

The inspiration lab focused first in building Abundance Thinking in the mindset of the service providers and regulators. The project showed that most important step in overcoming the assumptions that controls the paradigms is showing the participant the importance abundance and it create greater independence from government budgets. Then an independent business model for social development welfare services can be created: i.e. incomes that can come from elderly homes, disabled homes, family productivity programmes, etc.

Resilience practices was built in the social development services such as the 'Working from Home Program'. Other resilience practices was initiated after the Social Allowance entitlement were assessed. For example improvement projects started to focus on the quality and competitiveness of the products for the Retired and the Disabled.

The elderly social services model was integrated with the rehabilitation services in order to improve both the quality of the products and also quality of life, i.e. benefit from physiotherapy activities for both those above 60s and those disabled. Care and prevention (for those aged between 50 and 59); such as preventing age-related diseases and helping to develop businesses have helped to improve the outcome of the psychotherapy and level of awareness amongst the elderly's which helped to raise contribution to the society by 5%.

However, the main inspiration labs outcome comes when social/ business entrepreneurship programs was done through collaboration of the NGO public fund. This helped establish a business model with a budget independent of government funding (i.e. based on the outcomes from the projects and the CSR). The project also helped to improve the knowledge transfer between the NGOs involved.

The annual evaluation report submitted by the NGOs relevant to their measured contribution to society in the area of materialised social development shown the level of development in citizens' volunteering as part of a lifelong learning culture. This exercise helped to evaluate whether NGOs

have the capacity to optimise the partnerships and resources the society.

The project helped in optimising the utilisation of highly educated elderly people whom got early retirement or still have the capacity to address the social and economic issues.

Even through the country is expected to see an increase in the needs of the elderly for services as people live longer, no programs have been planned to meet this demand. Therefore we need to capitalise on the skills of crafts that elderly and disabled people have via a 'Craft Development Program' to be supported by innovation support and marketing teams.

The project expanded to social re-engineer the society to reduce the dependence on the elderly nursing homes so that the society maintain the elderly home care service. Volunteers competency management program helped to create more radical changes in social development services.

CHAPTER FIVE

TYPES OF RE

Resilience and Inspiration Engineering

Creating inspiration economy models needs us to maintain diversity with high levels of communication. Through being resilient, we can apply the formula for the sustenance of change. This is: Level of Dissatisfaction with current situation (D) x type of Inspiring Model we aim to create (M) x Process of Managing Change towards this inspiration (P). Thus, in order to have a successful Model (M), we have to continue to be resilient in three areas: Availability, Effectiveness (Outcome) and Efficiency. This resilience increases our ability to meet the OIC formula.

Resilience is considered the main core of the success of Inspiration Labs since, through it, we can build the main attitudes and behaviours needed to achieve an inspiration economy mindset. Therefore, the Inspiration Labs focus on creating, in the mindsets of the participants, purposefulness, persistence and selflessness. Resilient mindsets will develop individuals and communities that are cooperative and self-sufficient, self-initiated and proactive. Moreover, resilient mindsets lead to more positive thinking, making more likely to be risk takers with a high ability to manage uncertainties. This is shown in Figure (5-1).

Studies show that the more an organisation is healthy (with high communication) and is profitable (with high value added), the more it can improve its resilience. Through Inspiration Labs, we can establish

stability that will lead to acceptance; this establishes the first cycle in learning resilience. As we move towards greater sustainability, we will feel the importance of abundance thinking.

Figure (5-1) Characteristics of a Resilient Mindset



Therefore, it could be said that resilience has an inspirational edge and allows us to join forces in multi-disciplined game changers, or even become change agents who will build new layers in our communities. Through the spirit of resilience, we can establish research clusters that will deliver more focused efforts to transform our goodwill or intentions into better working practices that are reflected in our socio-economy; these will result in the development of better business models.

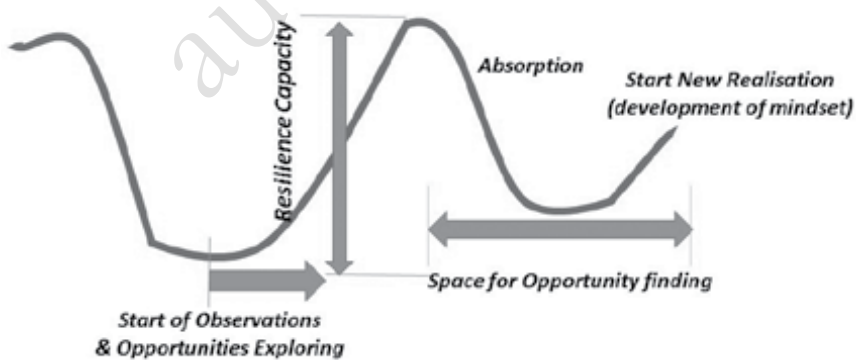
Today more than ever before we need social resilience to make our communities readier to be challenged on what is taught in schools as opposed to what must be learned from interaction and from challenging

the current state of our lives: i.e. to become lifelong learners. Being lifelong learners will help us to overcome depression and social disorders, thus increasing the resilience of our societies.

The proceedings of the National Academy of Sciences (2009) revealed that those with low resilience were found to have a significantly thinner right cortex (the outer surface of the brain) which affected their memory abilities. Thus, practising and maintaining the involvement of the spirit of resilience in an Inspiration Lab will help to build generations that have the powerful determination and persistence to create changes that are needed. The psychologist Elizabeth Lombardo (2009) believed that such resilience should be defined as “realistic optimism, hardiness, determination, and self-confidence”.

At the start of observations and exploring opportunities, we can raise our capacity for resilience as our ability to absorb what we learn during this stage will increase our ability to find opportunities. As we synthesise and absorb the results of observation, we start to shift towards a new realisation of ‘what we can do’ to change and develop our mindsets, as illustrated in (5-2).

Figure (5-2) The Capacity for Resilience during the Inspiration Lab and its Role in Changing Mindsets



Resilience Story

During a school walk-through, Principal Hoke received feedback from her supervisor that student engagement was low. She immediately reprioritized her schedule to spend more time in classrooms to learn what teachers needed. Compare this response to those of less resilient leaders who become defensive or resort to finger pointing.

Resilient Research Practices

It is difficult to reach a single definition of the social problem and as relativity play a prominent role in identifying socio-economic problem without establishing resilient research practices. ur hands on one reason. The causes of problems vary from one point of view to another, from time to time, from place to place, from circumstances to circumstances, and from one researcher to another, therefore we need to have resilient research practices in order to achieve the a differentiation.

Conducting research with resilience spirit about a problem means that we can determine its connection to the values and frame the message most suitable. With resilience we usually identify potential problem pathways to change. Moving from not aware of the problem to early awareness that defines the issue as one of relevance to them In resilience research we build also the theme of the research though more people engagement. i.e. through identifying the economic, social, educational, political and cultural benefits the research.

Resilient research has an inspirational edge that helps us to join forces with multi-disciplined game changers or change agents who can build new layers in our communities and who can also establish research clusters to deliver more focused efforts to transform our intentions into better working practices on the ground. Once people raise the capacity of their resilience, they tend to make universal explanations of the challenges around them, thus helping to develop their mindset. This is one of the main targets of Inspiration Labs and the inspiration engineering journey.

Reivich and Shatte (2003), authors of 'Resilience Factor', found that overcoming life's hurdles requires us to break down a problem into parts and determine which one can be solved first; we then fix what we can and then let the rest go. Resilience in Inspiration Labs is developed gradually based on this practice. Through practising more and more the capturing of opportunities, understanding the challenges, and working on the development of a model, we can clearly reflect and learn from the inspiration journey.

For example different researchers believe in resources that depends on the oil and petrodollar leads a materialistic scarcity mindset. Therefore if these type of researchers face problems this means they would face problems as wars without enough economic resource.

The resilient researcher should search for the level of saturation on number of factors be it environmental, or social, or community factors. The researcher should see the cause and the disparity in the pace of social and cultural change resulting from the rapid variation.

As resilient researcher goes through the research journey, he/she will find that he needs to divide it into mainly four stages, as shown in Figure (5-3). The first stage concerns going through a shift in cultural focus from 'what is wrong' to 'what works'. This means we need to be more resilient in terms of observing and discovering by trying to absorb the as a collective team of researchers whom can see things from different perspectives. Once we can absorb what we have observed, we can start the process to develop resilience that will lead us to sustain and generate research outcomes in better ways.

Figure (5-3) Journey of Resilience Research Practices



Through these four stages the resilient researcher can deal with the abnormal factors that occur and would look onto the economic conditions (causing problems) which can be represented in many aspects, which comes for example as observing early sign of poverty, vulnerability and unfair resources distribution. The resilient researcher also would look into any regime and judge its fairness or democracy level or extent of control over the course of affairs or the development efforts.

The resilience of the researcher would be evident from the social or cultural situations are handled during the socialization or the education or the cultural conflict. This should lead to better orientations and cultural data which leads to unlimited cultural openness.

Resilience Story

Oliver is a skateboard teacher working for Skateistan, a non-profit that combines skateboarding and education as a tool for empowering young people. Half the population of Afghanistan is under the age of 16, and 70% of the population is under the age of 25. Most shocking is the role that women play in society — most of them don't have jobs and cannot go to school. It's even been deemed culturally inappropriate for them to ride bicycles!

Oliver only makes \$10 a week, and he only has electricity every couple of days, but he is constantly rewarded by his time with the children: showing them how to skate, teaching them valuable skills in the classroom, taking them on field trips around Kabul... He was even able to help a 12-year-old girl, Priscilla, get a job as a skateboarding instructor, so she could stop begging on the streets as a way of supporting her entire family. Today, in Afghanistan, 40% of skateboarders are girls. Skateboarding is now the largest female sport in the country, and Skateistan continues to use it to educate and empower girls and boys through the community.

Social Development in RE

Social development is essential component of economic resilience. Through social development we can build social cohesion through building social relations. The extent to which effective social dialogue takes place in an economy which would in turn enable collaborative approaches towards the undertaking of corrective measures in the face of adverse shocks.

Social development in a country can be measured by the long term unemployment rate which is very important for RE since this rate indicates the proportion of the population with non-suitable or inadequate skills or employment prospects. Also social development is related to the proportion of the population with high level of education along with the measure of the number and extent of instances of industrial or civil unrest.

Education is another social development component that is measured by the adult literacy rate and school enrolment ratios which is positively correlated with social advancement and help to create the social fabric of the society. In RE we need to ensure that the population shares the risks through social protection that help to manage and reduce the welfare losses of a household.

Resilience Story

Many organisations that didn't manage to build resilience enablers they never open when they go through the first crisis. For example, 43% of businesses never reopen when they go through their first financial crisis. For example, after Hurricane Andrew in 1992, 80% of businesses couldn't continue for the next 2 years. The catastrophe of Katrina disaster showed the difference between those are ready and those who are not.

70% of all businesses that close for one month either never reopen or fail in three years. Most companies that lose their computer system for 10 days or more fail.

Cooperatives and Resilience Economy

Resilience enablers works on making the services close to the customer via consumer cooperatives and efficient support services with strategic alliances. With the continuous emerging changes senses a market needs through flexible tailoring of customer solutions.

A cooperative is a limited liability entity, organized either for-profit or not-for-profit, that differs from a corporation and producing members, rather than investors. Cooperatives play an essential role in all forms of resilience economy. According to the International Cooperative Alliance (ICA) coops are organisations that are controlled by their members, who actively participate in setting policies and making decisions. Usually such coops are very resilient in developing countries where there are farmers and industrial unions.

In worker cooperatives, net income is called surplus instead of profit and is distributed among the members based on hours worked, seniority, or other criteria. In a worker cooperative, workers own their jobs, and therefore have a direct stake in the having a resilience environment and the power to conduct business in ways that benefit the community rather than destroying it. Some worker cooperatives maintain what is known as

a “multiple bottom line”, evaluating success not merely in terms of net income, but also by factors like their sustainability as a business, their contribution to the community, and the happiness and longevity of their workers.

A consumers cooperative is owned by its customers for their mutual benefit. Oriented towards service rather than profit, consumers often provide capital to launch or purchase the enterprise. The co-op returns profits to the consumer/owner according to a formula instead of paying a separate investor group.

In his book, *From Mondragon To America*, Greg MacLeod argues that “in consumer cooperatives where the customer-members own the capital and the employees are subject to capital, the normal dynamic is the adversarial relationship of labour to capital. Mondragon developed a large “hybrid” cooperative which sells groceries and furniture in Spain. Mondragon shown that it is possible to devise a system that respects the rights of both producer and consumer, both sides of the economic question through consumer cooperatives. Most food co-ops are consumer cooperatives that specialize in grocery products. Members patronize the store and vote in elections. The members elect a board of directors to make high-level decisions and recruit managers.

Resilience Story

New data, especially on prices and growth, suggest that the global middle class, numbering about 3 billion people in 2015, may be considerably larger, by about 500 million people, than previous calculations suggested. Asian households, in particular, are now thought to be much richer, relatively speaking, than before. Notwithstanding gloomy forecasts for global growth, middle-class expansion seems set to continue, at a rate approaching 150 million people per year. In fact, the next decade could see a faster expansion of the middle class than at any other time in history. Within a few years, based on current forecasts, a majority of the world’s population could have middle-class or rich lifestyles for the first time ever.

Economic Openness and Resilience Economy

Economic openness can be measured as the ratio of international trade to GDP. A high degree of economic openness renders a country susceptible to external economic conditions over which it has no direct control. Economic openness is a resilience economy conditioned mainly by a country's ability to efficiently produce the range of goods and services required to satisfy its aggregate demand.

If a country's productive base is limited to a narrow range of products, it would have to rely on imports to service a substantial part of its expenditure needs and on exports to finance its import bill. It may be argued that openness to international trade may be influenced by policy.

Practical experience has however shown that trade policies tend to influence the level of resilience in the economy. Also studies shows that the more composition of a country's external trade flows, the more it has openness to international trade that could be a source of strength. However, other studies shows that a country could be exposing itself to a larger degree of shocks by participating more actively in international trade which it has little control on.

A resilient economy wouldn't have great dependence on narrow range of exports, since this would rise their risks level associated with lack of diversification. However, dependence on strategic imports would expose an economy to shocks with regard to the availability and costs of such imports. Depending on country's size and resources endowments this variable can be measured as the ratio of the imports of energy, or food or industrial supplies to the GDP.

Resilience Story

This case focuses on showing the power of visualisation in inspiring a specific sector in a country that needs to shift to quality of life practices and to be less dependent on secondary care services. Through visualisation, observation data was collected for the early detection of Non-Communicable Diseases (NCD's) in primary care services (where NCD's = Diabetes, Blood Pressure, Cholesterol and Obesity).

This case focus on improving the socio-economy by enhancing quality of life. For example, the project visualised the enhancement of the quality of NCDs' detection and thus individuals' quality of life through restoring the role of the 'Families' Physicians Programme'. The project inspired the whole Ministry of Health to re-install a Triage system and to work by priority, especially in health centres. The project also integrated the early detection of psycho-semantic patients with relevance to anxiety management in collaboration among health centres and psychiatric hospitals.

Strategic links between the early discovery of NCDs and other healthcare projects, such as: intelligence triage, family medicine, public health protection, emergency care beds, etc. The visualised goal was to reduce more than 45% of mortality due to NCDs, specially that Bahrain is considered as the top 10 countries health-wise. The program focused on fighting back bad practices as lack of exercise, smoking, bad family habits, obesity, etc.).

The project decreased the number of NCDs, reduce the impact of NCD diseases, and reduce the possibility of cardiovascular diseases. Also, the project managed to trigger projects on reducing the number of emergency cases and reducing patients' admissions to secondary care.

Shocks Resilience and Mitigation of Risks

A risk is the probability of a negative event and its negative consequences. A solid resilient economy is an economy that has high capability for the management and mitigation of risks. When a shock occurs risk becomes a reality. For example, a country may be at risk of earthquakes because it lies on a fault line and even they more at risk if they don't have what to absorb this shock (i.e. this earthquake).

Different types of risks, shocks and stresses impact almost every part of our socio-economic life. These shocks be it man made that lead to violent conflict, or natural as volcanic eruptions, or covariate shocks as currency devaluations can affect every aspect of our life if we didn't have resilience based on risks mitigation.

Loss of income-generation activity which also other type of idiosyncratic shocks can lead to devastating affects on the quality of life. In countries where there are seasonal shocks, such as annual flooding linked to the rainy season, food market price changes, or recurring shocks such as frequent displacement or endemic cholera in particular communities shcks resilience planning committess are expected to be empowered around the while year.

Shocks resilience teams are expected in countries or organisations where there are long term trends, such as weakening the potential of a system and deepening the vulnerability of its actors, like increased pollution, deforestation and exchange rate fluctuations.

Great consideration in risks mitigation in shocks that affect specifically families, and the cumulative impacts of seasonality and frequent low impact events. This great risk exemplified recently by the 600,000 Rohingya refugees who have fled violence in Myanmar since August 25th, 2017 due non ability to plan for shocks resilience that have been repeatedly happening in the last one. This failure in mitigation of risk led to the world experiencing the fastest-growing refugee emergency in the world.

Therefore, resilience economy tries to address the potential shocks and sudden change that a unit of society might face (for example an individual or

household, a community, or a state), of the natural environment (for example a forest) or a physical entity (for example an urban infrastructure network).

Shock resilience help to build sustainable livelihoods approaches where the capabilities, assets and activities required for a means of living are continuously monitored and supported to cope with and recover from stresses by raising its natural resource base.

The Sustainable Livelihoods system is a good basis for analysing the resilience of individuals, households, and communities. Under the Sustainable Livelihoods Approach, the well-being of a community depends on a system with six different categories of assets or “capitals” – financial, human, natural, physical, political, and social capital. The assets that make up each of these categories of capital will differ from context to context.

Resilience Story

Mohammad Ghouzlan is a circus trainer who helped a Finnish NGO to start a circus school in the Za’atari refugee camp in Jordan two years ago. The camp was created to host Syrians fleeing the violent Syrian civil war. Over 80,000 refugees live there, and the camp is so large it could fit 1,000 American football fields!

At the beginning, circus school took place in a refugee tent. Today, the kids train in a padded floor hangar divided by a curtain — boys on one side, girls on the other. Children and youths in the camp need a way to unwind and to focus their attention on something positive. The circus school gives them hope for the future. It teaches them that it’s OK to make mistakes, and together they learn to trust each other and work as a team. Experts say that children’s limbic systems become paralyzed in war situations. Sometimes, in the middle of an activity, some of the children seem to forget what they’re doing, or they’ll lose focus and stop listening to instructions. But teachers like Mohammad, and the work of the circus school, help give them focus. It also helps release war traumas and discharge the energy that builds up in young people forced to live in a small space.

People like Mohammad, and the circus school, are one of many efforts to help give Syrian refugees hope and joy in their daily lives within the camp.

Resilience Management vs. Asset and output loss

Excessive leverage (assets to equity capital) and risk taking are very important parameters for resilience management. Failing to build-up sufficient (equity capital) risk cushions in boom times is considered a resilience mismanagement.

There are many factors that leads to asset and output loss. For example explicit or implicit guarantees or the mindset that says (it's too-big-to-fail) is one of the main sources of these factors. If you recollect modern and old history you'll see many leaders caused major disasters and failures of their countries due to this type mindset.

Easterly et al. (2000) was one of the main researchers whom identified a non-linear relationship between financial systems development and macroeconomic volatility. Easterly study suggest limitation in the ability to smooth consumption, investment and output, since risks mount with the size of the financial sector.

On the other hand the more we have damages to assets the more we make them useless for production, i.e. a damaged factory cannot build cars, a damaged road cannot be used, and a damaged house cannot be inhabited. Therefore, scientists believe that we need to be resilient in managing output losses since it is directly connected to asset losses. This resilience means we'll have different scenarios in relevance to different difficult situations and disasters with various reconstruction plans. Japan proven to have managed such resilience repeatedly in recent history and therefore comes out recession in short time.

Annual loss of output is equal to the value of the lost capital multiplied by the marginal productivity of capital. Output losses would lead to complex

interactions between businesses and therefore resilience management needs to be at its utmost.

Resilience Story

Coming back for the project of enhancing the availability of emergency beds in Bahrain Hospitals, the project team applied Behavioural Economics to enhance the readiness of culture by changing the measures of delay for discharge or bed occupancy from days to hours. An online synchronisation was established between medical wards and A&E. This helped to build up more realisation about the importance of pre-discharge plans.

Since 78% of patients come from A&E and the discharge time takes more than 10 hours, the project teams realised the time needed to speed up patients' discharge. More focused studies found that most patients stay after 5pm and even over weekends because no discharge plans have been issued by consultants. About 40% of patients in A&E are transferred to medical wards. However, they sometimes need to wait for more than 6 hours; this might be up to 3 days. There are high bed occupancy ratios and slow bed turnover, besides poor facility utilisation and efficiency.

In order to prove that values of transparency, fairness and empathy are being maintained the beds needs to be available to the most needy emergency cases. Therefore the team focused again on reducing the waiting times for arrival and discharge days. This helped to restore the most optimised measures for admission and discharge that would balance between patients' rights that usually have the Quality-Cost-Delivery built on. The team also managed to set up a pre-discharge communication plan with patients' relatives, set up pre-discharge drugs' delivery through utilising Total People Involvement of both patients and families in the discharge decision. Provision of pharmacy and labs services through transport services helped this cause too.

Improvement in the cleanliness and management of beds while trying to reduce the bed costs and develop discharge checklist helped a lot in moving 90% of the discharge time to be before 12 pm instead of late evening. This reduced the average waiting time in A&E for a bed to be 1.5 hours while improving the quality of life of patients during bed occupancy. This also helped in reducing the average waiting time from more than 79 to 10 hours. Build a bed management business model based on peer to peer support while increasing the 'hit rate' and accuracy of forecasting the time of discharge from 40% only to 95% and by the hour. The project managed to reduce bed occupancy by 30% for most common disorders that occupy patients' beds, besides reducing the patient mortality in medical departments, while created an annual saving of about US \$10 million while most of all reducing patients' suffering.

Resilience Economy & Appreciative Enquiry

In order to be build resilient economy practices we need to build unique concrete experience capacity in the organisation or the community targeted, i.e. the senses and feeling need to be more attached to the experience itself. Once we experience reality we can start abstracting and conceptualizing, i.e. start reflecting. Those who think through the experience tend to be more able to build abstract dimensions of reality, thus can affectively analyse what's happening.

Resilience economy practices flourish when we start the reasoning stage of what we experience. With active experimentation or experiential learning we start the curiosity journey of socio-economic problem solving and positive mindset.

It therefore not a pure coincidence that there are a series of rising research lately about the relationship between appreciative enquiry in organisations and resilience. Studies show that maintaining positive emotions whilst facing adversity promote flexibility in thinking and problem solving.

Positive emotions serve an important function in the ability of the organisations to recover from stressful experiences and encounters.

Resilient economies as the one of New Zealand (NZ) have established coping strategies that concretely elicit appreciative enquiry, such as benefit-finding and cognitive reappraisal, humour, optimism, and goal-directed problem-focused coping as part of the NZ organisations culture. Organisation which tend to approach problems with these methods of coping may strengthen their resistance to stress by allocating more access to these appreciative enquiry. Social support from caring adults encouraged resilience among participants by providing them with access to conventional activities.

Appreciative enquiry is built on the model of self-efficacy and self-sufficiency which requires the belief in one's ability to organize and execute the actions to achieve necessary and desired goals with interrelated attitudes of commitment, control, and challenge.

Appreciative enquiry not only have physical outcomes but also psychological ones. In the onset of the research on resilience, researchers have been devoted to discovering the protective factors that explain people's or organisation's or society's adaptation to adverse conditions, including economic and socio-economic conditions. The focus of empirical work then has been shifted to understand the underlying protective processes.

Resilience Story

After Mandela entered the presidential palace to start the war of revenge against the whites who tortured him for more than a quarter of a century in his solitary cell, and sentenced his African citizens to laws equal to animals, Mandela surprised them by the policy of the outstretched hand, and punished them only with trials of confession to purge the soul, not

revenge and execution, Other revolutions. His opponents at this troubled stage became old comrades of the revolution who had cut their knives and avenged revenge on whites. Because of Mandela, who disseminated the concept of tolerance, South Africa today is the most important and most stable country on the continent.

Mandela, after the end of his presidency, refused to grant an exception and remain in power and to relinquish power. He wanted to make a sense of the meaning of a co-leader who moves from one flower to another. Therefore, he has been divided into charitable work and his institution interested in pursuing human rights and poverty everywhere. And until the death of God in the past year.

Each of us can be a handkerchief with his ethics and practices. He will be a leader living in harmony with his society. He will make the impact in different ways and from such leaders, young and old, nations and civilizations flourish.

Youth Resilience

The world is becoming harder for youth to bounce back after setbacks. However, youth resilience is not a luxury needs it is an essential requirement. With youth resilience we really we differentiate what is called developed vs. developing countries. If a country really developed in its culture, attitudes and ability to contribute to the world; you must find that its youth are considerably more positive, adaptable and actively responsive than other youth of less developed countries. This how resilience economy sees development of countries.

Youth resilience is reflected in their social coherence, targeted problem-solving, self-autonomy and having sense of purpose. In order to create youth resilience we need to give then a space to go through normal negative experience. Youth need not to be totally protected from life's knocks and challenges in order build their resilience muscles.

If youth psychologically ready to bring up an environment free from rigidity and fragility they can create a society with capacity to overcome setbacks and manage any negative experiences.

Many European leading countries educational systems have been changed since the early 1990's to allow youth people to make mistakes, without overprotecting them. This managed to minimise the last 3 European generations vulnerability and even produce persistent youth of entrepreneurial spirit.

Our core belief is that all youth strengths and the capacity for healthy relationships. We avoid labelling children as “bullies” and “victims” because these labels limit a view of children's positive development and their challenging life circumstances.

Similarly, there is no such thing as a typical victim. There are children and youth who become victimized for no apparent reason – they just seem to be in the wrong place at the wrong time. Others may project a social image of shyness and helplessness, and peers may feel they can get away with directing abusive behaviour their way. Still others may be perceived as different. Children who have no friends and who are excluded by the peer group are at higher risk than children who have at least one peer friendship. We know that children and youth with exceptionalities and those who have difficulties managing their emotions and behaviour are at heightened risk for victimization. Our research has shown that some children prefer the negative attention of peers to being ignored, so they will continue to hang around peers who are bullying them, even when it is clear that they are going to get bullied.

Resilience Story

It can't be much of a surprise that in Copenhagen, Denmark nearly 40% of its citizens cycle to work scores the number one posting in this first ever ranking of resilient cities. Copenhagen was the only city obtaining a perfect score on this commitment. Copenhagen is the lowest per capita emissions city and also sets the global standard by seeking to be the first major capital city in the world to achieve carbon neutrality (by 2025).

Resilience in the Work Place

Currently, a quarter of all employees view their jobs as the number one stressor in their lives, according to the Centers for Disease Control and Prevention. The World Health Organization describes stress as the “global health epidemic of the 21st century.” Many of us now work in constantly connected, always-on, highly demanding work cultures where stress and the risk of burnout are widespread. Since the pace and intensity of contemporary work culture are not likely to change, it’s more important than ever to build resilience skills to effectively navigate your work life.

Google and eBay shows that resilience teams aren’t the ones that don’t fail, but rather the ones that fail, learn and thrive. Such companies uses five decades of research on resilience and its built in attitudes, behaviours and social supports that can be adopted and cultivated by anyone. Factors that lead Google and eBay resilience include optimism; the ability to stay balanced and manage strong or difficult emotions; a sense of safety and a strong social support system.

Resilience Story

The Singaporean Military found to be one of the best militaries that uses resilience economy where it focuses on unit cohesion morale which is the best predictor of combat resiliency within a unit or organization. Resilience is highly correlated to peer support and group cohesion. Units with high cohesion tend to experience a lower rate of psychological breakdowns than units with low cohesion and morale. High cohesion and morale enhance adaptive stress reactions and make the experiential learning very high. This is one of the best traits of the Singaporean Army even though it is small in size.

Resilience as a Process

Resilience can be best understood as a process. It is often mistakenly assumed to be a trait of the individual or the organisation. Most research now shows that resilience is the result of individuals being able to interact with their environments and the processes that either promote well-being

or protect them against the overwhelming influence of risk factors. It is essential to understand the process or this cycle of resiliency.

When people/organisations are faced with an adverse condition, there are three ways that they approach it or defines it whether it will promote well-being or not. The three approaches are eruption of anger, implode with overwhelming negative emotions, becoming unable to react, or resist the disruptive change. The third category of approach are employed by resilient people/organisation who become upset about the disruptive state and thus change their current pattern to cope with the issue.

The first and second category of approach leads people to adopt the victim role by blaming others and reject any coping methods even after the crisis is over. They prefer to instinctively react, rather than respond to the situation. Those who respond to the adverse conditions in themselves tend to cope with it, resile and halt the crisis.

Negative emotions involve fear, anger, anxiety, distress, helplessness, and hopelessness which decreases a person's ability to solve the problems they face, and they weaken their resiliency. Constant fears and worries weaken people's and organisation immune system and increase their vulnerability to illnesses. These processes include individual coping strategies, or may be helped by a protective environment like good families, schools, communities, and social policies that make resilience more likely to occur.

RE process should be built on perseverance and passion for long-term goals. This is characterized as working persistently towards challenges, maintained effort and interest over years despite negative feedback and adversity in during times of both progress, or failure. RE process acting on the importance pathway. When people value a goal as more valuable, meaningful, or relevant to their self-concept they are willing to expend more effort on it when necessary.

RE process is about moderating the negative effects of environmental hazards or a stressful situation in order to direct vulnerable organisation/society to optimistic paths such as enhancing the personal attributes, the family situation and the community role.

Resilience Story

The Coca-Cola Company, operate in more than 28 countries, in a geographic footprint stretching from USA, Ireland to Russia and from Nigeria to Japan. Coca-Cola business serves 600 million consumers, 2.1 million customers and partners with approximately 130,000 suppliers. Coca-Cola maintain its social license to operate in its territories by generating a positive socio-economic contribution and improving the quality of life in the communities in which it operate. Coca-Cola measure its progress against this key objective through the income it generates in communities, specifically: employee wages, taxes paid, supplier and contractor payments and investing in community partnerships to improve environmental and social issues.

Coca-Cola know that the success of its business depends on the strength and wellbeing of the communities in which we operate. As a business, Coca-Cola contribute to its communities through the core business activities which it generates income through employees welfare, fair pay for its suppliers and contractors, improve the customers' profitability and support the public wellbeing and infrastructure through tax payments, dues and fees.

Coca-Cola have to be resilient in its business activity in order sustain its business. Therefore the company measures its contribution to the national economies and besides its measure its direct and indirect economic impacts which constitute "value added".

The Coca-Cola system try to show its active participation in improving communities lives in every market of operations. Coca-Cola strategic corporate social responsibility (CSR) and community programmes, such as the continued support of public active lifestyle and sports events provide "public goods" that benefit all citizens.

Coca-Cola use resilience economy practices through its manage of its business inputs with a focus on preserving the resources available. Financial Shareholders' equity, debt Manufactured Plants, warehouses, distribution

centres, Human Employees, partners, Natural Water, energy, eco-system services, biodiversity, Intellectual Brands, standards, processes, corporate reputation, Social Communities, customers, suppliers, diverse groups of stakeholders, NGOs, IGOs, industry coalitions,

Coca-Cola manage to enhance its society contribution by having €8.7 million Volunteer hours, 31,296 hours, Water footprint reduced to 18.4 billion litres, Carbon footprint reduced to 718,766 tonnes, Packaging recovery 73%, Recycled waste from our operations, 91% Bottling and bottle the manufactured beverages.

Resilience and Economic Vulnerabilities

Vulnerabilities describe the functioning of an economy, but it cannot be considered as a factor of under-performance. Vulnerabilities can be defined as an inherent features of resilience that is generated by implementing socio-economic policies that comes from economic openness, and level of diversification.

The RE significance and its vulnerability role differs by the size of countries, the smallest ones being most vulnerable as against the large-sized ones which can better cope with the external shocks, i.e. have the ability to leap back with rapid recovery after a shock. When we control the vulnerability of an economy we control the level of resistance to the effects of a shock and the ability of avoiding shocks in general. i.e. The vulnerability we enhance our immunity and shock absorption.

In order for an economy to control its vulnerability, it needs to be able to absorb or combat shocks. Therefore vulnerability is first come from macroeconomic stability, i.e. the factors that lead to share of budgetary deficit in GDP. Efficiency of the microeconomic market also affect the vulnerability. These again is affected factors as the size of government, legal structure and security of the ownership access. Also vulnerability is enhanced by the social development that comes from education, employment, cohesion, qualification, health.

RE Case Study- Resilience of Primary Healthcare

‘Influencing without Power’ is a very important concept for resilience economy. This concept was tested in a huge re-engineering healthcare project for improving the availability of bed for emergency cases in Bahrain Hospitals. Finding a bed for an emergency case in a highly populated country (in relevance to small Island) is one of the most challenging issues today. Especially if this is to be accomplished with no extra resources: i.e. minimising waiting times without extra resources of beds or staff. This project shows how resilience economy practices works in creating influence without the need for power.

The project started by understanding the challenges and opportunities in relevance to the data availability and management of beds in good quality and on real time and whether the continuous improvement of emergency services and expansion of A&E needed would help accommodate patients waiting for beds inside hospital wards. The consistency of peer reviews and patient satisfaction program were also assessed. The level of hospitality services culture was sampled for the medical departments inside the largest hospital and busiest emergency cases in the country.

The preliminary study showed that in order to ‘influence’ towards the availability of emergency beds we need to encourage resident physicians, i.e. those mostly connected to patients and always available near patients (after nurses) as a team to carry out data collection, data analysis and auditing in relevance to patients beds utilisation.

The pilot study in the Medical Department showed that patients of age 65 years old and above represent the majority of inpatients even though they are the minority group in Bahrain since majority of the country are youth. Even though the majority of patients in general hospitals would be admitted to a medical department, there is no accuracy in the information for patients’ admission and discharge. The amount of complaints, especially about the quality of treatment in A&E instead of being in a medical department needs to be changed. No proper communication plan were found between departments handling the emergency cases.

The hospital department found to suffer from 'vertical thinking' (every physician and every department have their own system for patients' discharge). Therefore a plan was set to encourage 'horizontal thinking' between departments to collaborate in order to create better quality of life for admitted patients. More 'integrated thinking' more reporting between multidisciplinary teams.

In order to build up better beds capacity speedy availability of beds led to lower the waiting time in order to receive the emergency service. Build a model for bed turnover focusing on available improvement techniques to raise the capacity of more than 220 beds to accept more patients per week. This would especially viable for meeting a country demand with limited resources.

Observing the working style in the medical wards in order to understand the way patients' treatments are planned and resident and consultant physicians' time is being managed lead to propose better methods of communication between the wards and other service departments, such as pharmacy, labs, admin. and the bed scheduling team; besides between the residents and the consultants.

Spirit of resilience helped to appreciate how emergency patients need fast services to be available near the beds in order to speed up the freeing up of beds by fast recovering patients, thus increasing the number of available beds. This was achieved through better integration of departments through dash board monitoring of bed turnover per physician. Specify which resident physicians prepare the patient release documents while studying common disorders that cause patients' demand for beds in the model department which is in this case the medical department. This can be supported by creating clearer protocols and care regarding discharge planning and home follow-ups.

CHAPTER SIX

**TRANSFORMATION
CHANGE TOWARDS RE**

World under very Dynamic Transformation

Beneath the great growth in different economies a great dynamic transformation. While this transformation is happening the gap is growing between the needs of the economy and the relevant socio-economic challenges. This dynamic transformation creates stress on people, resources, institutions, and systems which bring in greater concern.

The dynamic transition of the world helped to increase the growing gap between need and capacity. The frequency of rapid PESTEL (i.e. the political, economic, social, technological, environmental and legal) transitions increased the complexity of problems today. The world financial system is still struggling with the continuing impacts of global financial crisis, as it became interconnected economies. Therefore resilience can be an important remedy for future sustainability.

With current consistent imbalances most developed countries try to do more focused adjustments instead of waiting to struggle to manage the demands of rapid growth as emerging markets. Resilience economy therefore can be used more today in countries as India and China. We believe that both economies have different phenomenal growth. India for example focus on society engagement growth while China focus on strategic deployed growth.

Resilience economy help to mitigate the dynamic transformation due to aging populations that is rapidly increasing with life longevity in relevance to falling birth rates. This all causes increasing strain on the social safety net. Resilient economy would work in countries in India by creating employment opportunities for a booming youth population.

With resilience based economy organisations would be more persistent and perseverance. Gary Hamel, covered how reinventing management for the 21st century, sets out a clear sense of what it means to build organizations “that are fundamentally fit for the future—resilient, inventive, inspiring, and accountable.” Hamel seen that if modern management transform towards resilience the ability of the organisation to respond to sudden problems would be improved. With resilience economy we can create communities that are thriving with interdependence, flexibility, transparency and self-determination.

Building resilient organizations leads to resilient cities and then resilient societies that adopts values of open, flexible, and collaboration. Transitions profoundly affect people and communities life where declining resources addresses new threats. Resilience needs consistent calibration of responsibility, authority, and capacity that would ensure best welfare against emerging threat. Where threats go unanticipated and unaddressed, citizens begin to question the resilience capacity.

As much as transition brings risks, it also breeds opportunity and brings in new levels of wellbeing where a responsive, people-centered systems brings in change. Resilience is about investing in human and institutional capabilities and how to capture emerging opportunities to deal effectively with risk and adversity.

Resilience Story

In Ireland, the adjustment of relative wages and prices came immediately after the 2008-09 recession, i.e. it had occurred before Ireland entered in the financial assistance programme in late 2010. As a result, an export-driven recovery started already in 2011, while the unemployment rate

started to decline in 2012. This is very different to what happened in Greece, Portugal and Spain where the nominal adjustment has started many years after the recession, forcing the adjustment via a sharp increase in unemployment. These case studies suggest that well-functioning national economic structures are essential to economic resilience in all countries.

Even more so, resilience is not only in the interest of national economies, given possible spill-over effects to neighbouring countries. Limited resilience in particular has the potential to negatively affect the smooth functioning of a monetary union as a whole, as again the euro area financial and sovereign debt crisis has shown. Negative shocks propagate more rapidly inside the Union through strong trade and financial linkages, the confidence channel, the common external exchange rate and the single monetary policy. Nominal and real rigidities in turn can amplify and increase the persistence of spill-over effects, as rigidities affect the ability of a country to adjust to shocks.

From Unstable Socio-Economy to Resilience Economy

Resilience economy focuses on the classification of social problems that a society faces towards adapting to social life patterns. Thus the journey of shifting from unstable socio-economy to a resilient economy, needs many stages of adaptation. Early stages of adaptation deals with the set of recurrent problems resulting from external environment adaptation. Through this problem the humanitarian needs are addressed to meet the social challenges. Thus in order also to shift from unstable socio-economy we need to build consistent mechanisms that turn the negative affect of the problems to positive one. This would eliminate gradually the diagonal behaviour that demands confrontation and increase the probabilities for achieving the society stability goals that would enhance the social system contribution, as illustrated in Figure (6-1).

Figure (6-1) Probabilities for Achieving Society Stability Goals



In his amazing book on confronting capitalism, Kottler (2017) warned against the one capital based economic model. Kottler warned from authoritarian capitalism specially in nations where the economic growth has slowed down as U.S.A., Europe, and Japan. Kottler (2017) mentioned about how this capital economy becoming non-resilient where wealth is concentrated in the hands of a few and where natural resources are exploited for short-term profits.

Kotler explains 14 major problems undermining capitalism, including persistent poverty, job creation in the face of automation, high debt burdens, the disproportionate influence of the wealthy on public policy, steep environmental costs, boom-bust economic cycles, and more. Kottler believes that we can confront capitalism and create movements toward shared prosperity and a higher purpose organisations that would create a positive force for positive change.

The social problem are based on perceptions and perspectives people build based on their level of awareness about the problem. The clearer the problem becomes, the less prone we would have a mental rejection for it. Social problems usually needs a level of inspiration in order to be faced with counter behaviour or be confronted with negative effects. Therefore resilience in social problems is reflected through three types of such problems. If we start with fundamental social problems then it would be

linked to the lack of adequate services available in the community, or due to the non-satisfactory of a problems such as criminal behaviour, begging, homelessness, prostitution, etc. Or when come to the community problems which is linked to the bad relations between different groups in society.

Resilience Story

As an alternative to plastic packaging resilient solutions are becoming other competitive alternatives. For example, natural branding ‘Laser labelling’, a plastic-free branding alternative, is being trialled on fresh produce. Trials of plastic-free ‘laser labels’ have begun with sweet potatoes, avocados and coconuts. A strong light is shone on to vegetables, removing pigment from their skin. The mark comes off when the skin is removed and doesn’t impact taste, aroma or shelf life.

Resilience, Adaptation and Transformation

Adaptation is defined as a state that reflect how we deal with specific stressors. While resilience as per psychologists is considered as a trait, reflecting a general ability to master challenges and manage abilities to acquire new capabilities. While adaptation entails preserving existing resources.

When we tackle vulnerable socio–economical systems means we study how they lost resilience and enhance their recovery with more adaptation. Losing resilience implies loss of adaptability. Adaptability in a resilience framework does not only imply adaptive capacity to respond within the social domain, but also to respond to and shape ecosystem dynamics and change in an informed manner (Berkes et al., 2003). The variables and processes that structure ecosystem dynamics and sources of social and ecological resilience have to be understood and actively managed to deal with the interplay of gradual and abrupt change. It implies expanding analysis into broader spatial and temporal scales.

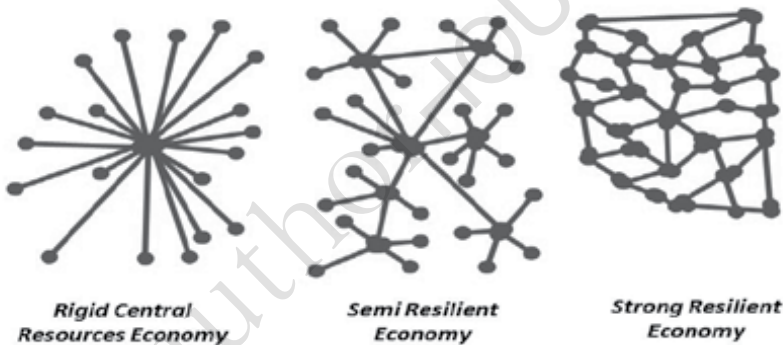
A major challenge in this context is to build knowledge, incentives, and learning capabilities into institutions and organizations for governance that allow adaptive management of local, regional and global ecosystems.

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In resilience work adaptability is referred to as the capacity of people in a social–ecological system to build resilience through collective action whereas transformability is the capacity of people to create a fundamentally new social–ecological system when ecological, political, social, or economic conditions make the existing system untenable (Walker et al., 2004).

Figure (6-2) illustrate how economies shift its tensions from rigid central resources economy to semi resilient economy by enhancing its distribution and adaptation. The real transformation come when the tensions are really distributed to build up stronger resilient economy that would have more ability to adaptation.

Figure (6-2) Moving from fragile yet rigid central resource based economy to strong resilient economy.



There is an increased emphasis on transformability into improved social systems as opposed to adaptation to the current situation.

Resilience Story

Cosmetics company Lush now wrap all of their bars of shower wash in dissolvable 'soap paper'. The dissolvable packaging, made from blended melon puree and soap flakes, was dreamed up by product developer Wesley Burrage in a sweet shop, inspired by fruit leather snacks. Such solutions brings lots of influence on creating resilience economy.

Resiliency Planning- Expect the Unexpected

Resilience planning requires that we have an alternate plans in case we face really unexpected situation. Resilience economy practices that includes vulnerability and adaptive capacity as shown in Figure (6-3) helps to manage the social problem depending on its subject, size, diversity and impact on the conditions of the society. The larger the population density in a society, the more complex the problem becomes and the more diverse its causes and sources, and the more its forms and types.

Figure (6-3) Role of Resilience in Managing Challenges



With a spirit of resilience, the creation of successful models is highly possible as this leads to greater insight that, in turn, leads to new waves of inspiration. Once this resilience is established in the targeted culture, the inspiration starts to enhance our abilities to see solutions inside each difficulty, thus helping us to focus on sustaining Inspiration.

Resilience Story

Mark Stevenson co-founder of Positive News Website travels the world in order to tell remarkable resilience stories. Resilience stories of Stevenson differs based on challenges and situations. For example, Stevenson reports about story in north-east India where a young man is growing crops in places that accepted wisdom would suggest that it's hopeless to farm. There are many resilience economy projects change leaders and entrepreneurs whom are trying to push for more resilient world. Mark Stevenson (2017) travelled across four continents to find those resilient thinkers whom are rebooting our world by stimulating a realised positive change.

Stevenson noticed that resilience leaders see things in different ways, i.e. when things are going well they are not as important as the potentials of threats. Neuroscientists have proven keeping our mind busy with threats give us a very skewed view of the world. When your attention is constantly snagged by the negative news, it's very difficult to concentrate on the positive ones.

Stevenson take the story of the resilient town of Gussing in Austria that went from economic disaster to mini boomtown, after taking control of its own energy production and distribution, and moving over to renewables. This inspired cities as Georgetown in the middle of Texas, USA to choose community renewable energy over utility oil. This positive resilience economy driven thinking is going towards open energy Stevenson says that it is going to be the first UK 'energy internet' that paves the way.

Another resilience story come from Hartsholme Academy, a school on one of the toughest housing estates in the UK that went from being pretty much the worst in the country to the best in two years, without changing a single member of staff – offering a replicable model of the educational renaissance.

Stevenson is like a resilience engineer who believes that future does not happen to us by coincidence, it is there to be made. The more we get behind a different narrative of our future, based on our collective power to solve our problems the sooner we'll reap the dividends. Stevenson resemble the saying of the Greek poet Dinos Christianopoulos is the original source of a much-quoted proverb: 'They tried to bury us, they didn't know we were seeds.'

Building a Resilient Organizational Culture

Current events teach us that crisis and even disaster occur far more frequently than previously anticipated. Japan's post-tsunami crisis and repeated tornadoes of the Southern and Midwestern US shows that vulnerability of modern infrastructures to the forces of nature is very low.

Wall Street's meltdown, the subsequent recession, the consequent human-made bubbles of crisis calls for better human resilience. Developing culture of resilience in organizations and communities can help to build psychological immunity. This immunity can help to rebound untoward effects of adversity.

After the two Gulf Wars we saw how important having resilient organisational culture for the continuity of many companies in Iran, Iraq and last but not least Kuwait.

Studies on organisations that have a resilient culture the importance of having a catalyst that would increase group cohesions and dedication to the specific organisational vision and goals.

Resilient culture can be observed in organisation that demonstrate attributes as optimism, decisiveness, integrity, strong communications network. These four criteria's found to increase the organisation credibility and bring in its value added contribution to the top.

Organizational complexity brings its own challenges. The realities of doing business across time zones, geographies, and product lines have led to a focus on organizational matrices and shared responsibility. This can help build resilience by increasing cooperation and information flows. Resilient cultures complement the benefits of shared responsibility and empowerment with a clear understanding of and responsibility for managing individual risks and reporting problems.

Pressuring sales teams to meet high sales targets—and rewarding this to the exclusion of behaviour or ethics—is a significant causal factor in corruption and fraud. Incentive and reward systems tend to be out of the remit of compliance teams and based on budgets set at the corporate level, which human resources departments then translate into performance-management systems.

Resilient cultures think carefully about incentives and set targets and compensation based on thorough review of market conditions. Resilient cultures also make ethical behaviour a key factor in determining executive compensation. However, these strategies will only succeed if the corporate culture allows for an open discussion of ethical challenges.

Organisations that have high credibility can serve as visible “model” that inspire the behaviours of other organisations to be more associated with resilience. Self-efficacy also can help to develop the attributes of resilience. With self-efficacy organisations choose how much effort they put forth in given endeavours. How long they will persevere in the face of obstacles and failures. And how much they would be resilient to adversity.

Resilience Story

Rangel, Camerer, & Montague (2008) mentioned there are five different stages in decision making, namely (a) identifying the decision problem; (b) weighing the possible choices; (c) making a decision based upon the evaluation of the choices available; (d) after carrying out the decision, consider the resulting consequences; and (e) learn from the decision-making process in order to make better decisions in the future.

Price plays a multi-dimensional role in influencing purchase decisions. According to traditional hierarchy-of-effects models, advertising effect of advertising exposure leads to brand cognition and cognition about the ad, which then leads to the attitude towards the ad and the brand until their purchase intent (Mendelson & Bolls, 2002). Previous studies also focus their attentions on the psychology side of advertising and they indicate how to use people's emotions to get their attention and increase their recall of the advertisements, in the hope that this will lead to the purchase of that product in some point in time (Elliott & Speck, 1998).

Resilience and Sociology

Having resilience planned based on sociology would help to build up a social system that work in synergy to maintain a balance functions of actions that would lead to positive consequences. With sociology we focus on how social relationships influence people's attitudes and how major social institutions affect us towards being rigid or resilient.

Having a sociological perspective for resilience economy helps to build a general social patterns in the behaviour of particular individuals. Sociology help organisations and communities to observe opportunities and to discover the social levels of reality.

Understanding the influence of sociology on resilience help us to realize that society guides our thoughts and deeds. With sociology we can see the familiar with the strange and the strange in the familiar. With sociology we see how diversity would work in the specified social context.

With sociology the organisations would have the capacity to see how specific experiences and difficulties in our society would prevent a resilience economy practices. Studies also shows that social marginality, where people would be alienated and excluded as outsiders separate organisations from resilience economy.

The relationship between organisations and the wider society found to define its level and competency of resilience. The ability of the organisation to view its role in the society to shape its cultural contribution and even resilience biases.

With organisations have clarity in its sociological perspective and role opportunities and constraints can be assessed and improved. Sociological perspectives helps us to live in a diverse world and that we need to be developing our resilience in order to see the strange in the familiar and be able to contribute effectively to our socio-economy.

By understanding our role in the society we would understand how to deal with those who have the power at any moment in time, i.e. not allow them to dominate our dreams and targeted legacy. By having organisations and communities that avoid dominance we avoid conflict or at least ready for it once alliances are formed.

So times and during moments in time it might be wise to allows some organisations to dominate others that it should be in a way that it would allow more social interactions to come back. Through having organisations that communicate we can raise the general consensus on how situations are defined or can be handled. This would enhance the organisation response towards reality and thus make it more ready to hear and listen any gradual or sudden changes in its socio-economy.

Resilience Story

Branding have direct influence on the mindset and is considered one of the challenges and in the same the opportunities for resilience economy. With branding we communication strategy that exposing the brand and create a brand image. Within the traditional branding model, the goal was to build a brand image that drives short-term results. In resilience driven economy branding can focus more on the intangibles (emotional and symbolic) since the tangibles (rational) side is becoming more stable. The intangible would be the real differentiation of a product.

Many times, consumers make spontaneous decisions, i.e. “without thinking”. If we manage to build resilience in these spontaneous actions begin before people decide to act, then we are creating a resilience economy mindset. The truth is that the majority of information our brain receives is processed unconsciously. Out of 11 million bits of information our senses are taking in a second, conscious brain can process only 40 bits per a second the rest is on subconscious brain, which mathematically equals 99.999 percent. In order to evaluate if a decision might be positive or negative, the ventromedial prefrontal cortex and the striatum are the brain regions which are claimed and which,

Resilience Economy and Well-being

The central core of resilience economy is well-being. Resilience therefore, is on positive bio-psychological adaptation practices that was proven useful as a theoretical context for understanding variables and predicting long-term health and well-being.

Well-being as a terms is beyond pleasure, it is rather a status of happiness along with acceptance along with actualization of one’s full potential or true nature. It includes life satisfaction as a cognitive component and high positive. Different studies and assessments showed that wellbeing is made of the following constructs that are also illustrated in Figure (6-4) self-acceptance, autonomy, personal development, positive relations, life purpose-fullness, community and/or environment awareness.

Figure (6-4) Illustration of the Wellbeing Resilience Economy



Wellbeing found to be highly linked to the capacity to raise the household income. Also wellbeing found to be linked to wealth, in its general term, i.e. more than the wealth of money. Established wellbeing in societies found to be linked to jobs and life satisfaction, therefore for example it is generally found to be better in OECD countries where the high levels of GDP per capita, but some high-GDP countries still face challenges in terms of work-life balance, unemployment risk, personal safety and low life expectancy. Studies even shown however that different well-being outcomes can be in countries with very similar levels of GDP per capita. This underlined the importance of giving more attention to the many factors *beyond GDP* that would shape people's life experiences. Today we can see that opportunities exist for many countries with similar levels of economic development to learn from one another in terms of "what works" to deliver more inclusive growth and improved well-being.

Wellbeing is found to be mainly related to economic disparities. This disparity varies from country to country and go well beyond differences in household income. For example, wellbeing found to be differ in the bottom 60% of population which owns only 20% or more of total net

wealth in countries as in Greece and Spain, but owns less than 8% in highly developed countries as Germany and Austria. Other studies shows better-educated people tend to live longer, but at the age of 30, tertiary-educated men can expect to live anything from four to 18 years longer than their primary-educated neighbours, depending on the country and its economic disparity.

Consistent life wellbeing is still a challenge in many countries even in OECD countries due to long-term unemployment rate among younger workers between the ages of 15 to 24. However in OECD countries this is compensated by social welfare net and the low levels of income inequality. Nordic countries tend to have much smaller differences in quality of life outcomes, including gender and age-related differences.

Wellbeing is reflected in the length of the working hours. For example in OECD 1 in every 8 employees work for 50 hours or more per week. Studies shows that people in full-time employment spend under 15 hours per day on leisure and personal care, on average, including time spent sleeping.

Resilience Story

The Sanitary Water Network is meant to conserve natural resources. Annually, there is an increase of 1% to 3% of consumers using the network which either needs to be met by expanding the network (which means extra resources) or by finding other means that would help to increase the network's capacity without the requirement for extra resources. Part of the problem of instability in the network is the repeated and high number of blockages in the water pumps. Since an awareness of sanitary water is an important obligation for every citizen to help protect the environment and quality of life, there should be a consistent formula that ensures effective communication to raise citizens' awareness.

In order to see where to free the sanitary system blockages the 'Speed of Response' was measured to see how to increase the possibility of minimising pump blockages and to understand the type of countermeasures needed to address network and sanitary system blockages, including preventive maintenance and intensive programmed maintenance, especially in the black spots (i.e. areas where repeated incidents and blockages occur). Study the knowledge management system available to enhance the organisation's learning.

THE repeated blockages in the network helped to define the "Future State of the Sanitation Network", especially if we fail to bring in innovative solutions in relation to the big picture. This help to set the ideal state we want to achieve in the sanitation network.

The project team focused on effective learning that the corrective maintenance team can do to reduce the annual break downs in the pumping stations from 5140 hours to approximately zero. Total Predictive Maintenance was applied in order to prevent sudden blockages where the data should be classified (per month and annually) by year, month, status, pump station, fault description, category, total outage.

Then another pilot project was carried out to understand the consumers behaviour. 45% of reasons for consumers dissatisfaction can be rooted for the continuous pump blockages which is due to misuse by the consumers. 30% of the pump blockages were found to be due to design faults, a clear communication plan was established between the operation and design teams. The time for sanitary hall provision was reduced from 30 days to only four on average with more strict designs and contractors' supervision based on the accumulated knowledge from the classifications of the causes of the blockages.

When the study was repeated there were 557 reported blockages (per month). The study revealed that there is correlation between the type of repeated blockages and specific types of pumps, pump installation design and most importantly the type of disposed items found in the sanitary system. Set up a transformation was set to eliminate or minimise items from the network such as Grease (solid grease which comes mainly from Asian restaurants), or Hair (coming mainly from Hair Salons). The total improvement in the sanitary network and efficiency improved by 15% and the blockages were reduced by 23%.

Relation between Resilience Economy & Inspiration Economy

Resilience Economy is very related to change management, change acceptance, change absorption and radical change. When change is well balanced with challenge we can increase possibilities of resilience and resilience recognition, besides our ability to deal with disappointments increases.

With the capacity for change management built in the organisation or society mindset we can encounter, understand, adjust, cope and stabilise things in a way that would enhance our abilities to discover both inspiration and resilience.

With inspiration we can focus on creating a differentiated outcome through creating an inspiration opportunities that start with seeing the essence of existence; be it for individuals, organisations and/or society. Therefore exploring inspiration sources can enhance resilience economy focus in creating practices with high resilience and flexibility, by starting with identifying the purpose of life. Once we establish purpose of life we can establish sense of belonging which raises our ability to focus with high confidence. Our capacity to managing stress and anxiety then gradually would help us to be more resilient with willingness to take risk.

Having inspiration within the organisation enhance its resilience capacity since the organisation would be free from reacting with flight and fear, once

a sudden challenge or problem occurs. Thus the capacity of the organisation to manage anxiety with more accountability would help to affect our socio-economic status and to deal with life with positive attitudes. Thus our capacity to communicate with surrounding environment would develop learnings from success and/or failures as illustrated in Figure (). This triangle cycle applies even more to organisations and societies besides individuals.

Figure (6-5) Triangle of where Resilience Economy meets Inspiration Economy.



Inspiration found to address the presence of resilience based economy when people start to get confronted with adversity or challenging circumstances during a specific condition or the journey of lifetime. Once inspired people, organisations and societies become more resilient and tend to be more curious to explore the inner strengths and focus on outcomes while optimizing resources. This applies again to organisations and societies even more individuals.

As early as (1954) Julian Rotter was of the early whom defined the traits of resilience. Rotter mentioned for example that resilience to be achieved we need to believe that we can control events which affect them. This exactly what triggers Inspiration Economy. Both the resilient and the inspired would feel that they can control the environment around them. Once we

establish the mindset of both inspiration and resilience we start thinking and observe in more empathetic not sympathetic way. This establish spirit of compassion and become more appreciative for challenges. At this stage we start to be more independent during judgement and this enhance even more resilience. This minimize our the potentials of being pessimists where we would see the difficulty in every challenge, but rather turn to more optimist where would see opportunity in every challenge. Therefore, the resilient Nelson Mandela used to say “the greatest glory in living lies not in never falling, but in rising every time we fall”.

Inspiration economy works best with challenges and this is exactly what we focus on resilience economy. Thus, admiration and adoration should relate to other emotions resulting from the transcendence of one’s prior knowledge and experience. Inspiration brings in positive emotions and admiration compound emotions that would differentiate negative self-feelings, fear, and tenderness.

Resilience Story

Science can be used as a means for resilience. Total people involvement is now one of the main techniques that the Leading Higher Education Institutes are using to emphasize their message.

For example, there are today approximately 1.5 million people are on a quest to advance human knowledge with Zooniverse. Zooniverse is a series of projects that ranges from charting comets to transcribing letters written by Shakespeare’s contemporaries. Another resilience program is focusing on capturing the clouds with Nasa’s GLOBE Observer program which help to improving how people understand the world’s environment.

Other resilience programs focus on wildlife charities that involves the participants in science programs. The People’s Trust for Endangered Species welcomes produces also reports of threatened wildlife, or try the iRecord app from the Centre for Ecology & Hydrology to lodge local wildlife sightings. These are just few examples of many where resilience economy is established indirectly due to spread of what bring humans together.

Resilience Psychology

Psychological resilience is the scientific study of behaviour and socio-economic processes and how they are affected by both intrinsic and extrinsic powers. Resilience and resilience based economy are mostly related to the state of the brain and central nervous system. All organisms function in an environment that is constantly presenting them with problems and challenges that must be solved.

There are three basic criteria's of resilience psychology that can differentiate any resilience economy if implemented well. These criteria's are self-confidence, self-esteem and self-concept. One the new resilience psychology drivers are neuroscience. With neuroscience we would study the science of neurons and specially those related to the socio-economic decisions, For example we'll see that neuropeptide Y (NPY) and 5-Dehydroepiandrosterone (5-DHEA) are neurons that limit the stress response by reducing sympathetic nervous system activation and protecting the brain from the potentially harmful effects while mediating the stress resilience by the oxytocin impact.

Resilience psychology therefore is very important for exploring the capacity of bot resilience similarities and differences that might come from cognitive, or social, or developmental, or health, or wellbeing status, or more than one of them.

With this resilience focused psychology we can focus on an organisation's ability and how it can successfully adapt to life tasks in the face of socio-economic disadvantage, or sudden or highly adverse conditions. Here the resilience psychologically would focus on the ability to bounce back from a negative experience with "competent functioning". The process of resilience psychology of any socio-economy focuses on the trait. It help to build a resilience driven economy that would have gradual discovery of personal and unique abilities.

The greatest obstacle to experiencing resilience and its positive advantages is accepting the reality of being. Therefore making the organisation /

community outside world an exact reflection of our their inner world would ensure peaceful resilience. Psychology of resilience say and emphasis that all our socio-economy are only a reflection of who we are. I.e. if we are angry inside, even though we may have buried the anger so deeply, it will lead to another anger in our life. Therefore we can simply say that more Resilience Inside = more Resilience Outside.

With resilience psychology organisations and teams learn how to surrender i.e. powering the organisation with more tolerance that leads to resilience. Organisations or even communities more and more today are consciously choosing a way of life that embraces acceptance, joy, and faith while dealing with situation as they arise. This type of surrender leads to strong waves of resilience that is full of empowerment and better opportunities.

As we move through each decade and navigate changes and challenges in our career and personal life, we begin to identify our supposed missteps – big and small. We begin to understand how our own doubts, insecurities, self-limitations or expectations may have been getting in the way all along, and take such insight into the decades ahead of us. Without such experience, it can be difficult to gain such clarity around what we might be doing wrong or what might be holding us back in our work, side projects, relationships or health. But sometimes the experiences of others can help speed us along.

Psychology of resilience depends on an applied science that studies the resilient behaviour and the physiological and cognitive processes that underlie it. Resilience depends a lot on the accumulated knowledge of dealing with or overcoming problems. Resilience Psychology depends therefore on the human behaviour and mental processes.

The way we behave in relevant to challenges as acting and/or reacting to thoughts, feelings and memories. With resilience psychology we can scientifically evaluate common beliefs and misconceptions about specific behaviours and/or mental processes thus start to see and appreciate why people behave in specific ways.

Resilience psychology help to describe, explain, predict, and change behaviour based on the observations collected. These observation techniques, called introspection, which depends on process of self-examination where the person described and analysed thoughts as they are observed.

Alibaba Group resemble history of resilient Chinese management practices which has its own history and success stories and totally psychologically different from Western management models. Chinese business practice receives today even more global attention as the Chinese economy rises and proves resilient to many international financial problems. The psychology of resilience in part of the world comes from the concept of balance in Chinese business which is rarely understood by the rest of the world. Resilience in the Chinese economy comes from the “positive adaptation” of stressful or adverse situation. The psychological studies in China today helps in understanding how engaging people in different style of life enhance their hope. It is important for any emerging economy as China to adopt resilience in order to overcome deeply stressful situations or failure of “competent functioning”. This psychology of balancing allows China to rebound from adversity with more strength and resourceful mindset.

Professor Jing Huang (2014), a senior fellow at the Brookings Institution, explained the psychological resilience by demonstrating the difference of the art of balancing between Western and Chinese management practices and exploring how successful management practices can be learned from both models. For example the psychology of Chinese management value the teaching of wisdom and art and thus get a good balance between the two. In other words, it means keeping a dynamic balance so as to ensure the compatibility of Yin and Yang and the coexistence of two extremes, reaching the final goal of all living creatures growing together without doing harm to one another, roads running parallel without interfering with each other.

As the brain absorbs the observations a process of how and why the mind functions, called functionalism starts to emerge. The functionalism broadens our perspective and help us to control our behaviour and its relevant mental processes.

During the outcome of the resilience psychology helps to develop humanistic positive human values that fulfil the self and the cognitive mental processes that leads to better learning and reflections. With the rise of the biopsychology, i.e. the neuroscience perspective and the biological factors affect mental processes resilience psychology is developing more rapidly. Therefore today we are more aware how the social and cultural factors influence behaviour and how to adapt it.

Hence, psychological resilience of behaviour and socio-economic processes are affected by both intrinsic and extrinsic powers. Resilience even found to be more related to the state of the brain and central nervous system. Therefore with resilience psychology we can discover self-confidence, self-esteem and self-concept.

Resilience Story

The great philosopher Socrates is good example of resilience behaviour. One day he crossed one of his students whom said eagerly: "Oh dear sir Socrates, do you know what I heard about one of our students?" Socrates replied, "Wait a moment, before you tell me, let me test my needs to hear anything about that. Socrates called it the "Triple Filter" test. Socrates continue asking, before you tell me about my students, take a moment to filter what you would say. The first filter Socrates said was about is honesty. Are you sure you will tell me is right? The student showed quite as if he is not sure. Socrates then said "Well, if you're not sure what you're going to tell me, right or wrong? Let's try the second filter: Filter of reporting only goodness, what will you tell me about that student is it something good? The man replied: No, on the contrary. Socrates continued: Well, so you want to tell me something bad about my students, even though you're not sure it's true, the man started to feel embarrassed. Socrates: Then said... there are still a glimpse of hope that you might still pass the test! Let us try the third filter said Socrates: the useful interest filter. "Will you tell me something useful about my student? The student said no. Socrates: If what you are going to tell me is not right, not good, or not even useful, or valuable, why do you tell me about it?."

Cultural Diversity and Economic Contribution

By the year 2100 about half of the world's 7,000 or so languages are likely to have disappeared. As a result, information about cultures, their history, the environment, and the different ways that people think will also disappear. Therefore, the world need resilience to maintain the cultural diversity.

There are many causalities that would enhance or hinder cultural diversity. For example, when languages disappear due to the few remaining people who speak them die, the diversity and of the culture affects even the socio-economic stability. Therefore, cultural diversity help to develop thinking and understand how to think and solve problems in more unique and resilient way.

Cultural diversity functions to retrieve memory and establish holistic thinking that involves doing unique results with information to solving problems, or judging or creating or finding something would help to build a resilient mindset. With collective cultural diversity and experiences we can have a broader outcomes that leads better economic decisions. With diversity, resilience builds constructive nature of memory based on profound knowledge.

Therefore, diversity management is highly required for resilience economy. With diversity experiences behaviour can managed and lead away from being biased. The thinking that diversity bring requires little effort that leads to less than optimal outcomes. Controlled thinking is needed for resilience but requires intentional effort specially that diversity thinking leads to more optimal outcomes. Psychologically resilience is also needed when we have adversity and challenges.

Effective diversity help to establish practices of self-regulation and self-organization. Diversity is needed when dynamic protective factors have no inherited invulnerability, as with diversity we any vulnerability is reduced to the minimum.

The more diversity acceptance we can create the more we can create regeneration and stable relationship of emotionally supportive economic contribution. With diversity more economic role models can cope with instability and cognitive competences. With diversity we can build more resilient characteristics as self-efficacy, positive self-concept and active coping behaviour that lead to better resilience economy.

Resilience Story

The repeated stories of the trapped miners make miners labour unions. It is a type of a cult that you live with them spirit of solidarity. The learning from the previous incidences and accidents make them ready to halt their slide into despondency once they are trapped till they find strength in each other. This spirit of resilience is reflected in their socio-economy and one could see it in different communities and societies in the world where such unions exist.

Economy & Mechanisms of Resilience

Mechanisms of resilience is based on two main stages that is reduction and adaptation strategies. These stage help to organise the thoughts and change the negative waves into positive ones. The two stages helps also to reframe the problem and turn them it into series of challenges that leads to discovery of new opportunities.

Observing resilience in communities show that organisations and/or societies are more biologically and psychologically ready for being resilient. Studies show that intentional stimulus can contribute to the development of communities. Therefore, it is believed that resilience involves thoughts, beliefs, attitudes and behaviours that can be learned and developed.

Mechanisms of resilience is a natural response to a demand placed on us. Targeting resilience stimulates our level of alertness towards socio-economic situations.

Resilience help to overcome self-defeating processes, thus reducing emotional discomfort. With resilience we would be more mobilised and focused as we'll have great control on the way we think and create ideas.

Once resilience occurs symptom reduction and adaptation strategies start to contribute to life journey differentiation. Once mechanisms of resilience absorbed in the mindset the reaction to any problem developed takes a pause. The mechanism of resilience driven mindset help to increase pauses and the reaction to problems. These pauses helps to tackle the capacity to focus.

Using the mechanism of resilience helped to see other perspectives. It helped to make people accept and adjust to the things that can't be changed, e.g. forced conditions of wars, growing older, loss of physical health, loss of a relationship, a death in the family, etc. With mechanisms of resilience we can enhance the design to the level of acceptance of such situations that might create anxiety and inhibits resilience. However, many developed countries offers different resilience mechanisms programs that enhance both psychological and physical resilience readiness.

Resilience Story

In early August of 2017, Shell announced a profit, after few years of loss that came as a result of the heavy debts that were causes by the legal issues of Gulf of Mexico pollution that was caused by the leakage of Shell pipeline. The resilience of shell came from its culture of persistence and perseverance that helped the company to overcome this huge financial and psychological catastrophe.

Why Resilience Economy is Needed Today?

Resilience is more than ever needed today since it help to fill the highly diversified people, production and processes that we go through in our daily life.

Life is full of ups and downs, therefore resilience requires us to meet setbacks and able to assess and mitigate risks. Resilience can influence the strategic communication, develop the way we develop resources, enhance our multicultural communications and help in consistent organizational development.

Resilience Economy would help to fill the economic barriers that happens due to rigidity or inability to plan for the future. With resilience economy we can ensure effective investment made with flexible frames that leads to new paradigms for social change (collective action, dispersed innovation and shared responsibility).

With resilience economy the utilisation of knowledge, people capabilities and engagement would be at its best, as resilience ignites creativity and innovation and breaks the barriers across cultures. Resilience economy therefore targets to strengthen human capital that harness arts that would create a sustainable and meaningful society. With resilience we build the public will to achieve new goals and replace old obsolete ones.

The mindset for resilience help to build new paradigm for social change (collective action, dispersed innovation and shared responsibility).

Resilience Story

Non-profit organisation Insight STEM in Arizona provides a host of explorative learning techniques to help people become more comfortable with science, technology, engineering and mathematics – and not a text book in sight. The main goal of this NPO is to democratise science knowledge and education. STEM want people to be more connected to, comfortable with and excited by science, technology, engineering and mathematics (STEM). We've focused on knowledge through exploration in various ways.

STEM focus on helping families become more engaged with teaching their children about science. We support and connect online teachers in schools around the world. Also, we work with kindergarten teachers because often they're very uncomfortable teaching science; their curriculum is focused on numeracy and literacy instead of scientific and critical thinking and exploration. STEM also works on projects with the American Association of the Advancement of Science where we're connecting teachers with scientists and students in science and communication fields. They're developing better ways to communicate science content through exploration.

STEM give students a lot more opportunity to get hands-on and try things while still having the same learning outcomes that would be expected from reading a chapter of a textbook or something that's strictly 'teacher-directed'. Our approach incorporates kids working together on a project but reflecting everyone's contribution to [the project] and giving real ownership over the results.

STEM address a lot more learning styles (kinesthetic, visual, auditory) because everyone is working together. One example might be a physics experiment with the frequency of sound in different length pipes: the groups could make a panpipe-type musical instrument, learn how to tune that and also predict how the length of pipe varies the note.

For more details on this story please visit:

<https://www.positive.news/category/economics/good-business/>

Resilience Thinking

Thinking is the mental activity that allows humans to process, understand, and communicate information. There are three types of thinking that are correlated with resilience thinking: convergent, divergent, and metacognitive. With resilience thinking these three style of mental activity allows us to understand, process, and communicate information and in order to do a resilient decision.

The basic units of thought that builds resilience thinking comes from symbols, concepts, and prototypes. There are three kinds of thinking: convergent, divergent, and metacognition. Thinking is the mental activity that is involved in the understanding, processing, and communicating of information. Thinking is made possible through units of thought that include symbols, concepts, and prototypes.

In general people think in three ways: convergent, divergent, and metacognitive. Convergent thinking is thought limited to facts. We use convergent thinking to find one solution for a problem or task. Developing rules and following them is one example of convergent thinking.

Convergent thinking is not particularly creative. Divergent thinking allows the mind to associate more freely to various elements of a problem. Divergent thinking is at the base of creativity. Divergent thinking typically results in multiple solutions. Metacognition consists of planning, evaluating, and monitoring mental activities. It has two different aspects: metacognitive knowledge and metacognitive experiences. Convergent thinking is directed toward achieving one solution; divergent thinking is open-ended, typically resulting in multiple solutions; metacognition is thinking about thinking—for example, planning a task and then evaluating one's performance.

Resilient thinking needs both convergent and divergent thinking, however the practices and ethics of resilience are highly linked with divergent thinking.

Resilience Story

Research about other groups uncovered different qualities associated with resilience. The Search Institute, a Minneapolis-based non-profit organization that focuses on resilience and youth, found that the more resilient kids have an uncanny ability to get adults to help them out. Still other research showed that resilient inner-city youth often have talents such as athletic abilities that attract others to them. Many of the early theories about resilience stressed the role of genetics. Some people are just born resilient, so the arguments went. There's some truth to that, of course, but an increasing body of empirical evidence shows that resilience—whether in children, survivors of concentration camps, or businesses back from the brink—can be learned. For example, George Vaillant, the director of the Study of Adult Development at Harvard Medical School in Boston, observes that within various groups studied during a 60-year period, some people became markedly more resilient over their lifetimes. Other psychologists claim that unresilient people more easily develop resiliency skills than those with head starts.

Developing Resilient Thinking

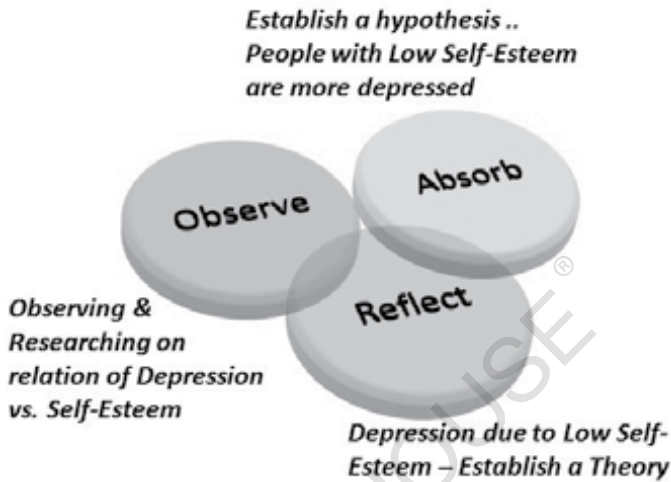
Resilient thinking uses scientific method to construct theories that organize observations and imply testable hypotheses. Through scientific method we can construct theories and organize observations that takes us through tested hypotheses.

Resilient thinking we can build gradually a resilient mindset.

Therefore, resilient thinking can be developed based on three main steps that triggers both reaction and planning for action, as shown in Figure (6-6). The first step of resilient thinking is the practice of observing. Observing and researching on relations relevant to a specific problem, say depression, and how it affects self-esteem. The second step is the practice of absorbing. At this stage we work on hypothesising the relation of low self-esteem with the problem. Final step we establish a theory that is related

to the problem faced, in this case depression, trying to explore how it leads to low self-esteem.

Figure (6-6) Three main steps that triggers Resilient Thinking



Repeating the essence of a research study help us to be more resilient thinkers that search for the basic models then generalizing it. This type of self-reporting technique help to develop our attitudes and/or behaviours. Resilient thinking leads to building proper consensus effect that leads to estimate and then forecast.

Role of Education in Building a Resilient Society

Lots of our current education system today needs to be reframed to meet the requirements of having a resilient society and economy. Multidiscipline and more disruptive learning that brings in more arts education into all the different disciplines help to build stronger individuals and communities with more resilient expectations. In a resilience environment we would have a wave for more increase in the buy-in from internal and external stakeholders. We would create engagement and motivate people to take action.

With resilience in education we can continue to establish new norm, create ownership for the new frame by integrating old with new approaches. However, in order to establish this resilience we need to differentiate our communication approaches in education builds bridges for long-term while having short term social action plans. This resilience helps to build sense of unity in the cultural context while increasing the ability to closely bring in values of organisations or communities create a unique social fabric. The role of educational system of any resilient society is to do these connections and ensure there are enough research and development to maintain it.

Resilient educational system should help to manage diversity while each individual taking new or different action. The educational curriculum should help to galvanize the different community members around different issues which would create new set of normative expectations.

Resilient educators can be a source of influence to specific decisions and actions during a limited time frame. Resilience economy help us to frame the problem, build awareness while creating personal convictions. Therefore, many unique educational leaders needs to develop more resilience prototypes as an example of the concept that best exemplifies the characteristics and benefits of resilience. Resilience prototypes helps in categorizing the world and process information about it. Without prototypes, students might not realise the importance of the elements of resilience or even ensure that it is well practiced.

Studies early 1990's in leading developed countries as Scandinavian Countries and Canada considered resilience in their educational system to enhance the students invulnerability which improved students temperament, intelligence, problem solving, stress management and enable them to achieve success. These studies suggested that there was something remarkable about students who overcame great adversity.

How we Create a Resilient Brain?

To reach a resilient mindset we need to be challenged in our life journeys. This applies to individuals, organisations and communities. The resilience in the mind would start to build up linkages based on the collected observations which in turn would create (field of opportunities). This should help to established sustained enablers and more opportunities options that would enhance the end results that would create (impact and outcome). Once these outcomes are linked to clear aims and concerns they would lead to the more resilient brain and more important resilient mindset.

In order to establish early resilience we should turn all the collected observations into useful linkages, i.e. use the field of opportunities by curiously exploring who and where involved in these linkages absorption.

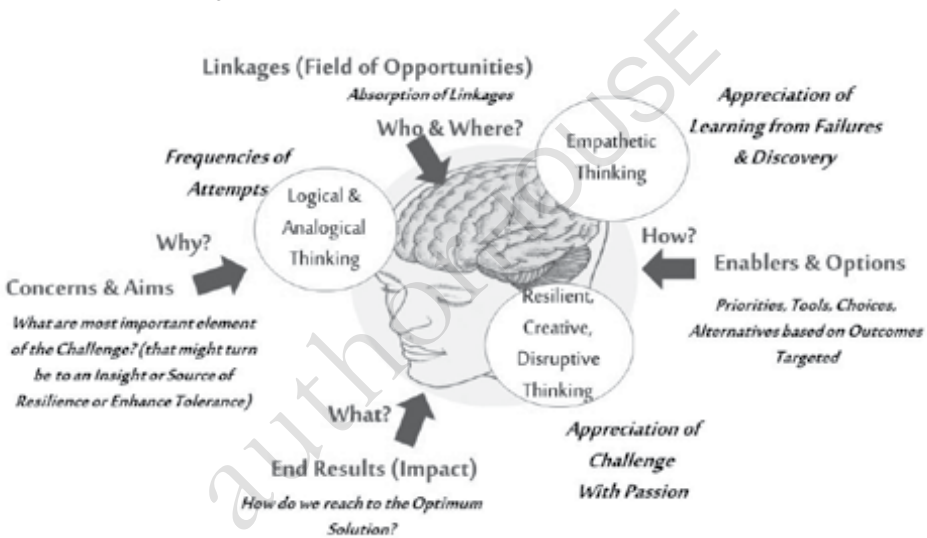
Then the resilience would increase by understanding the enablers and options or currencies it offer. This understanding would increase by asking how? How would open us many resilience insights as the priorities now and later, the tools that would help to enhance resilience, the choices that would be flourished with more resilience and the alternatives based on resilience outcomes targeted.

Both the resilient based linkages and enablers practices would lead to appreciation of learning from failures and early discovery for coming up challenges that enhance the forecasting ability and even the readiness to face different types of challenges. This should create the empathetic thinking mindset as shown in Figure (6-7). The end results (impact) driven mindset would increase the resilience of the mindset in a way that it would increase the curiosity of the “what is the essence” of many things, then the technical curiosity of the how do we reach to the Optimum Solution?

Setting end results and targeting to utilize the enablers of resilience leads to appreciation of challenges and with repeated frequencies enhancement of passion which leads to more resilient, creative, disruptive thinking mindset.

If all of this linked to clarity of role of life, concerns about leaving a legacy and aims of life fulfilment this would help to raise the hit of the why and also would help to create more “focus” on the frequencies of attempts. Both end results and concerns would lead to thinking about what are the most important element of challenges which might turn be to sources of insights, or in other word sources of building muscles of resilience that would enhance the tolerance ability. This mechanism and exercise raises both the logical and analogical thinking to new heights never experienced before that would help to ensure resilience sustainability. All of the discussed is reflected in Figure (6-7).

Figure (6-7) Mechanisms of Resilient Mindset



Resilience and Social Change

The concept of social change refers to the differences and changes that occur over time for a society. These changes include the customs, values, laws and regulations of the social order in society. Social change may also include a change in the population structure or class structure of the society or patterns of social relations.

Factors of social change can be ideological, i.e. a meaningful intellectual movement that has positive effectiveness in the social environment, social

relations, social values, and social processes. The ideology stems from social status and categories. Also factors of change can be from cultural renewal which takes many forms such as discovery and invention, it would come from humanitarian action that is due to the performance of individuals, groups and bodies intended in the process of social change. Finally, factors of change can come also from the technological change that cause social and cultural changes resulting from cultural underdevelopment or cultural gap, which results in the failure of social systems to cope with modern social developments, leading to the inability of social systems to absorb.

The members of society differ in knowledge about the social problem in society. This difference is due to the degree of proximity or distance from the problem which resilience economy can help to build and maintain. Studies shows that all social problems are less important when socially and geographically distant. Most people have a limited rate of knowledge about social problems. They are often irregular and sometimes called contradictory and sometimes incorrect.

Resilience Story

Meneghel et. al (2016) found organizational inducements and employee psychological resilience—in determining employees' commitment to, and supportive behaviours for, organizational change. Conducting a two-wave survey in a sample of 234 employees and 45 managers, we found that organizational inducements and resilience were positively related to two types of employees' commitment to change (normative and affective) and that these effects were mediated through state positive affect and social exchange. We also found that the two types of commitment to change were positively but differentially related to behavioural and creative support for change, and negatively related to turnover.

Learnings from Nature Resilience

The resilience perspective emerged from ecology in the 1960s and early 1970s through studies of interacting populations (May, 1972).

Ecologist C.S. Holling in his paper on resilience and stability in ecological systems illustrated the existence of multiple stability domains or multiple basins of attraction in natural systems and how they relate to ecological processes, random events (e.g. disturbance) and heterogeneity of temporal and spatial scales (Holling, 1973). He introduced resilience as the capacity to persist within such a domain in the face of change and proposed

that “resilience determines the persistence of relationships within a system and is a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters, and still persist” (Holling, 1973).

Once discovered it was obvious that conditions for multi-stable states were inevitable. And that, being inevitable, there were huge consequences for theory and practice. Single equilibria and global stability had made ecology focus on near equilibria behaviour, fixed carrying capacity with a goal of minimizing variability. The multi-stable state reality opened an entirely different focus on behaviour far from equilibrium and on stability boundaries.

High variability became an attribute to maintain existence and learning. Surprise and inherent unpredictability was the inevitable consequence for ecological systems. Low density data and understanding was more important than high-density. I used the word resilience to represent this latter kind of stability.

Hence, the useful measure of resilience was the size of stability domains, or, more meaningfully, the amount of disturbance a system can take before its controls shift to another set of variables and relationships that dominate another stability region. And the relevant focus is not on constancy but on variability. Not on statistically easy collection and analysis for data but statistically difficult and unfamiliar ones.

It became the theoretical foundation for the work with active adaptive ecosystem management where Holling, Walters and colleagues mobilized a series of studies of large-scale ecosystems subject to management—terrestrial, freshwater and marine. This process developed an integrative

sense of the systems by using a sequence of workshop techniques for scientists and policy people to develop explanatory models and suggestive policies (Holling and Chambers, 1973; Holling, 1978; Clark et al., 1979; Walters, 1986).

Resilient Thinking

In a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work. This view creates a love of learning and a resilience that is essential for great accomplishment. Virtually all great people have had these qualities.

Sources of none-resilient thinking is all or nothing thinking, overgeneralisation, disqualifying the positives or focusing on the negatives, magnification or minimisation and thoughts feelings fusion. Resilient thinking requires self-awareness which raises the ability of an individual to be in tune with her/his own feelings and to recognize the impact that his/her feelings have on others. The competency that underpins this dimension is emotional self-awareness.

Resilient thinking brings in self-management which raises the ability to keep negative emotions and impulsive behaviour under control, stay calm and unflappable even under stressful situations, maintain a clear and focused mind directed on accomplishing a task. The required competencies for this dimension are positive outlook, emotional self-control, achievement orientation, and adaptability.

Resilient thinking is also social awareness which is about the ability to read or sense other people's emotions and how they impact on the situation of interest or concern. The competencies for this dimension include empathy and organizational awareness.

Resilient thinking is built also on relationship management where the focus is on the ability to influence, guide and handle other people's emotions. The competencies that underlay this dimension include inspirational

leadership, influence, coach and mentor, conflict management, and teamwork.

Resilience thinking bring in perseverance where it creates the willing to persist despite adversity and meaningfulness where we acknowledge life is worth living along with sense of independence and freedom.

With resilience thinking we can build good intentions and effective use of resources and listen with a constructive ear redefine stability as change. With resilience we can predict that positive change will happen. Therefore developing resilience thinking support networks, reflection and assertiveness. With resilience we can avoid procrastination, develop goals, work – life balance.

Harnessing resilience brings in high frustration, less tolerance, less self-acceptance, less self-belief, less humour, less perspective, less curiosity and less adaptability. Developing resilience keep a rational mindset that make us see the blind spots.

Resilience Story

Social entrepreneur Jerry Lockspeiser describes how his new book helps take the confusion out of wine, while helping create lasting change in Sierra Leone. In 2010, Jerry travelled to Sierra Leone in west Africa with development charity ActionAid to see first-hand how their work was helping people in the country to recover after many years of civil war.

Jerry found that country has a lack of just about everything we take for granted, from health care to roads, education to consumer goods.

Community schools in the west of the capital, Freetown were constructed of corrugated iron sheets and palm leaves. Hundreds of kids aged between six and 14 were crammed, side by side, into open classrooms. There was no well for water and no toilets. The insanitary conditions meant that many girls did not go to school. It was obvious that without better primary education there was little chance of kids receiving secondary education,

and without that there would not be enough educated people to rebuild the country.

Back in London Jerry this story to two friends who, like me, had spent their lives working in the wine business. Jerry and his team decided to create a wine brand and use all of the profit to fund the building of schools in Sierra Leone in partnership with ActionAid. We set up The Million Foundation as a social business to own the brand. By 2014, sales had raised more than £250,000, allowing us to build five schools and educate 1,500 children in some of the poorest parts of the country.

For more details on this story please visit:

<https://www.positive.news/category/economics/good-business/>

Migration and Resilience Economy Problems

The most difficult social changes are those that create a kind of isolation between individuals and social systems and/or those would create new type of socio-economic problems.

Migration is considered to one of the top most difficult social change and a problem that needs great resilience and bring along with it lots of opportunities of resilience based economy once it integrates within the society. Whether the migration is internal or external problem, it works to turn people to be an economic and social power that moves from place to place and they carry their values and habits as well as difficult circumstances. With migration there are however high possibility of arising of social problems because of failure to reconcile with the new community. Therefore resilience and its socio-economic influence is very important to look at. Migration if not faced with resilience economic practices might lead to wars, or disintegration, or poverty, or unemployment, or intolerance and other social problems.

Resilience Story

“Find Your Spark” is an NPO helps youth at-risk through coaching psychology programmes that aim to raise their wellbeing and aspirations and enable them to realise their passions and potential. “Find Your Spark” delivers one-to-one and group coaching programmes based on positive psychology to young people at risk of becoming NEET – i.e. not in education, employment, or training – and professionals who work with them. Our programmes aim to raise the wellbeing and aspirations of young people, so that they may realise their passions and fulfil their potential.

The main outcome of “Find Your Spark” is the increased positive emotions which improved relationships and identification and recognition of purpose and meaning to their lives. The latter is key: finding a purpose in life, even a small purpose that gets these young people out of bed in the morning, can be life-changing. The entire perspective of their lives shifts as they become more accepting of their circumstances, more open to opportunities and more positive about their future.

The main difference between “Find Your Spark” programmes and traditional approaches to youth empowerment is a focus on the individual rather than a ‘one-size-fits-all’ approach. Positive coaching psychology offers a strength-based and solution-focused approach that empowers young people to find the confidence and courage to change their lives for the better.

For more details on this story please visit: <https://www.positive.news/category/economics/good-business/>

Building the Capacity for Endurance

Endurance is a way of bringing in new roots and letting older roots to die off gradually to create resilience change on dynamic structures. Socio-economic endurance can come from nature which is full of endurance forms that are able to react, respond, and adapt to local conditions while

retaining their strength and integrity. Through endurance mechanisms we can distribute failure and encourage growth.

Resilience design methods can be useful when developing endurance for services and/or products. In order to be able to build endurance for any product we need to use it and familiarise ourselves with it. Hence it is a typical process that resilience designers should use when developing products and services.

Resilience design help to develop human stories and insights while designers build empathy for users, and ensure ideas being developed are relevant. Testing the endurance therefore improve ideas throughout the entire development process. Making an idea tangible from an early stage through cheap mock-ups helps save resources and can minimise risk.

Prototyping help to build endurance since it allows real world feedback from users that ensure better, more relevant outcomes. It can be quick and cheap and allows a solution to be iterated and improved before it is rolled out. With endurance in mind during resilience designs we can keep connected to different business challenges and involve and build collaboration between multidisciplinary teams.

Resilience Story

The Integrate Movement is helping facilities such as schools and housing associations take a mental health-led approach, so that excluded people get the help they need. Nicola Slawson talks to former city accountant Michael Harris about creating this service

The Integrate Movement is changing the way services work so excluded young people get the help they need whenever and wherever they need it. Together with young people – who we describe as being ‘experts by experience’ – we are designing and delivering workshops for frontline workers who regularly come into contact with vulnerable young adults.

These workshops, which we call Labs, will help services that are traditionally non-mental health focused, such as prisons, the probation service, hostels, schools, housing associations and job centres, take a mental health approach in the way they do their work. We want to build the capacity of these frontline workers to enable them to have therapeutic conversations with young people.

The Integrate Movement is the sister social enterprise of Mac UK. Mac UK are trying to transform the way mental health services work for excluded young people who get caught up in serious youth violence and gangs. They came up with this ground-breaking innovation over the last six or seven years where they've brought mental health services to the streets.

For more details on this story please visit:

<https://www.positive.news/category/economics/good-business/>

Resilience Economy & Natural Disasters

Resilience Economy also focuses on our ability to deal with *natural hazards and disasters*. *Natural disasters* such as earthquakes, storms, hurricanes, intense precipitations and floods, droughts, landslides, heat waves, cold spells, and thunderstorms. If a hazard affects a human system – from one house to one region – and causes sufficiently large negative consequences to this system, the event can be a natural *disaster* leading to negative consequences. As such, what we call a natural disaster is thus above all a social and human event (World Bank 2010).

In addition to human losses, natural disasters have economic consequences, which also affect welfare. From an economic perspective, a natural disaster can be defined as a natural event that causes a perturbation to the functioning of the economic system, with a significant negative impact on assets, production factors, output, employment, or consumption.

Usually disasters affect more middle to low-income countries (vs. 5% in high-income countries). When we study countries that have a natural

disaster almost every year such as Japan, USA, Australia, Spain vs. other low income countries that goes through the same as Pakistan, Bangladesh, South Sudan, etc. we really appreciate the importance of having resilient economy. In highly resilient economy as Japan for example, you find that human being is the first priority of disaster risk management and therefore the government proactively innovate and optimize the learning by experience to save lives. In developing countries where most of human losses occur compared to the level of disaster, low and slow learning from previous experiences and thus the impact on the socio-economy is very high.

In resilient economy you'll greatly notice that there are improved coastal dikes and the protection of coastal wetlands and coral reefs to more resistant buildings and infrastructure (World Bank, 2013) after a tsunami for example. Early warning systems coupled with evacuation schemes would be spread throughout the country (Hallegatte, 2012).

Resilient economies would have socio-economic action plan according to the level of the disaster happening; i.e. when 10 or more people are reported killed then this would be level 1 action plan; while when 100 people are reported affected then a state of emergency is declared. If the disaster causes more lives damage then another more advanced socio-economic intervention would be declared and even an international assistance might be issued, if necessary.

The learnings from Japanese economic resilience is that its socio-economic system compensate the immediate losses of assets and the monetary expenditures and work to replace damaged properties not only in short time compared to the level of disaster that Japan goes through, but also with taking care of the livelihood constructs. The level of the mitigation of risks that the Japanese built on their system over the years made them the most competent humans on earth when it comes to managing consequences of loss of output and production, and loss of income and livelihood. Therefore, resilient economy would be graded based on the ability of that economy or that society to minimize welfare losses for a disaster of a given magnitude.

Resilience Story

Room for Tea is a Social enterprise that connects young people undertaking internships and in need of short-term, affordable accommodation with hosts who have a spare room in their homes.

Room for Tea is a home-sharing network that connects interns looking for short-term, affordable housing in London with hosts who have spare rooms in their homes. This organisation focus on working with young people who are undertaking unpaid or low-paid work experience and need affordable accommodation, and with single parents and older adults who might benefit from renting out their spare rooms.

The motivation stemmed from my own experience as an unpaid intern in the third sector after graduating from university. During my internship, I realised it was very difficult to get a paid job at entry level in the third sector and the thought of having to do another unpaid internship seemed ridiculous.

For more details on this story please visit:

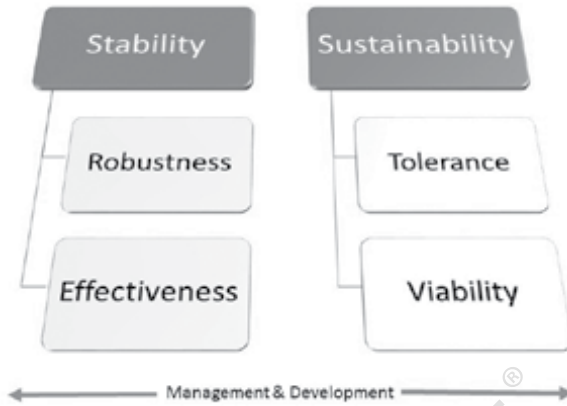
<https://www.positive.news/category/economics/good-business/>

Level of Resilience vs. Speed of Recovery

Deviations and structure dynamics are part of the physics of life and we can't ignore it by any means. Deviations can happen from failing to achieve structure (planned) approached or by failing to achieve expected or unexpected challenges or maintaining it.

In order to ensure resilience stay at high level we need always to test is speed of recovery. This recovery requires that stability mechanisms are followed with sustainability mechanisms, called 2S. i.e. as shown in Figure (6-8) robustness is followed by effectiveness and tolerance is followed by viability capability. Also opportunity for speed of recovery would be great if the 2S's are effectively managed and goes under continues development attempts.

Figure (6-8) Requirements of Resilience Economy Recovery at all times



Hence, once we have all the components of recovery well established we can guarantee the ripple effect in almost any system or even creature. If we believe in this we can create many world class stories.

Singapore have a great success story about improving its fresh water recovery capacity. Singapore managed to build a unique approach to reducing drought impacts and building resilient water recovery system. In every drop of water, there was a story of life or a new source of Singaporeans national livelihood. Singapore managed to set strict laws that helped to create a shift in the mindset of many countries about the importance of resilience and resilience economy for countries survival. Singapore today is considered one of our major reference countries that have a focused educational programs.

In order to build resilient citizens Singapore Leadership starting with Lee Kwan Yee built the water story which is very crucial to any human survival. The Singaporean water or later called Singapore River Story too ensured it collects around it all the diverse Singaporean backgrounds and managed to create Singaporean unique fabric and unity.

With resilience we can create therefore ecosystems that can increase its capacity vs. demands, i.e. we can increase the speed of recovery in a time when the world's natural resources, as water, are under increasing pressure due to the booming growth in human population which is

expected to reach 9.7 billion by 2050. Resilience is needed not only due to population growth, but to the increasing use of water per capita. Therefore it is clear we need a high speed of recovery in relevance to many natural resources that are depleting, including most precious of all that is water.

Resilience engineering is highly needed for case as the water shortage or water global consumption demand where we need to address the way we live, practice and sustain certain habits in relevant to water. Many water processes, products, designed systems, resources need to be relooked at. We need really to go even deep in studying the socio-economic practices, including for example the way we diet and use water in our daily life production. This resilience recovery intentions need to be reflected in a clear detailed strategies.

Through resilience strategy we should include a recovery plan of how to mitigate risks of scarcity of resources in order not to make translates into other price volatility. The recovery plan should include how to manage the ripple effect not to make the falling agricultural productivity lead to increase prices, famine, reduced incomes, accelerate migration and more socio-economic instability. Also, the recovery plan should help to control the trigger for any water conflict that leads to wars or more human devastation.

Studies shows today that without resilience economy practices a natural resource scarcity, such as water alone causes a drop to about 6% in GDP. Therefore, strategic recovery is highly need to where countries are at a threat of drylands in particular.

The recovery strategy should help to mitigate the negative affect on land degradation due to water quality. i.e. Farmers need to go for supplemental green vegetables that consumes less water yet give the same presentation and benefits.

In order to develop our recovery opportunities we develop and sharpen our ability to manage choices. Part of resilience strategy also to enhance the projections for the future. It strongly suggests that overcoming the

prevailing paradigm of 'reactive' and 'crisis-based' approaches, while moving towards 'proactive' and 'risk-based' approaches.

The welfare impact of a disaster does not only depend on the physical characteristics of the event or its direct impacts in terms of lost lives and assets. Welfare impacts also depend on the ability of the economy to cope, recover, and reconstruct and therefore to minimize aggregate consumption losses. This ability can be referred to as the macroeconomic resilience to natural disasters.

Macroeconomic resilience has two components: instantaneous resilience, which is the ability to limit the magnitude of immediate production losses for a given amount of asset losses, and dynamic resilience, which is the ability to reconstruct and recover. Welfare impacts also depend on micro-economic resilience, which depends on the distribution of losses; on households' vulnerability, such as their pre-disaster income and ability to smooth shocks over time with savings, borrowing, and insurance, and on the social protection system, or the mechanisms for sharing risks across the population. The (economic) welfare disaster risk in a country can be reduced by reducing the exposure or vulnerability of people and assets (reducing asset losses), increasing macroeconomic resilience (reducing aggregate consumption losses for a given level of asset losses), or increasing microeconomic resilience (reducing welfare losses for a given level of aggregate consumption losses).

Resilience Story

In the 1990s competition from Asia steadily eroded the margins and market share of Xerox's more-complicated and expensive copiers and printers. By 2000 net losses approached \$273 million on \$19 billion in revenues. The resilience repositioning of the line of copiers that are simpler, more cost-effective to produce, more technically advanced, and less expensive to operate. Xerox also developed a Global Services unit that took over document management and other processes for large organisations, an effort accelerated by the \$5.5 billion buyout of ACS in 2009. R & D, branding and marketing were all joined together. By the second quarter of 2012, services accounted for 51% of the company's

business. Total corporate revenues reached \$23 billion and net income neared \$1.3 billion in 2011.

While costs will almost certainly have to be cut, incumbents need to take a more expansive look at their business. That requires asking foundational strategic questions: What can we still do better than both our traditional rivals and the upstarts? What must we give up? Why do our customers come to us? What is the real need that connects them to our brand?

At Xerox it meant refurbishing 95% of its product line by cost-effectively making more technically advanced copiers that were easier to use, better integrated with the internet and less expensive to run.

At Xerox, senior vice president Ursula Burns saved billions by winning concessions from unions, shutting outmoded factories, and outsourcing thousands of jobs to the contract manufacturer Flextronics. In the end the company's 91,000-person workforce was cut by more than 40%. But what in 2000 had been a \$19 billion business with net losses of \$273 million became a stable, profitable \$15 billion business four years later.

Therefore, by setting up Xerox Global Services (XGS) in 2001, which took over document management and other processes for corporations, state governments, and other large organizations. Just like IBM, Xerox needed at least a decade to build its B organization into the corporation's principal business. But by the second quarter of 2012, 51% of its revenues came from XGS. In its most recent fiscal year, total corporate revenues reached \$23 billion and net income neared \$1.3 billion. Xerox has slowly transformed itself from a product maker to a services company, now that XGS accounts for a majority of corporate revenues. The company tells that story through its "Ready for Real Business" campaign, which features testimonials from services clients like Michelin and Virgin Atlantic Airways. At Barnes & Noble the profitable, repositioned core is providing the lion's share of revenues for now, but the company's future awaits in the dynamic e-book marketplace. That's why CEO Lynch calls B&N a technology company, not a bookseller.

Resilience and Nature of Recovery

In the wake of the recession, economic recovery is still considered to be the biggest test of economic resilience. The nature of recovery and how fast it comes shows whether the socio-economic mechanisms appear to be paying its dividends.

As the economy slowly shows signs of recovery long-term business investment flow would help to balance major disparities. The severity of the recession establish the length of recovery and nature of economic growth with increasing attention being paid to ideas of economic resilience.

With recovery towards resilience we can enhance the ability of the economy to adapt to both shocks and to long-term changes. During recovering from the recession, we need to do enough learning from the lessons of the past. The learning from every recovery help to build new seeds of future economic crisis.

With resilience recovery we can be more conscious about role of productivity which builds a resilient economy. This help to enhance the conscious for the need to change. This builds resilient (healthy) communities that identify human leverage, appreciates community strengths through Total People Involvement (TPI) and Total People Engagement (TPE).

With recovery we can balance between (Growth vs. Development) which it differs with the level of citizens engagement. The Scandinavian countries resembles good resilience economy recovery examples, i.e. these 4 countries shown high ability to come back after crisis specially after the 1990's & 2010.

Resilience Story

Martin Myerscough, inventor of the world's first fully recyclable paper cup. Martin observed that there are more than two and a half billion takeaway coffee cups are used every year in the UK alone and virtually none are recycled. A normal disposable coffee cup is made by getting a piece of cheap cardboard and lining it with plastic to stop it from leaking. But because the film is bonded so strongly to the cardboard, when it goes to a recycling mill it won't separate. We've done it the other way around – first we made the cup then put the plastic in afterwards. So when it goes to the paper mills the plastic will separate in the recycling process, and the cardboard goes through the filters to be used again. Martin and his team worked on this project for a couple of years. The 3 Boys company specialises in packaging innovation. For more details on this story please visit: <https://www.positive.news/category/economics/good-business/>

Welfare Losses and Macroeconomic Resilience

Losses in economic output do not directly affect people's welfare; for households, what matters most is consumption. Macro-economic resilience therefore focuses on investigating how output losses translate into consumption losses.

However macro-economic resilience is needed more in managing the potential loss of jobs which affect households. For example when assets are Lost and outputs are reduced job opportunities would be much less. This affect the capacity for consumption and thus even loss in capacity of competition.

Studies shows that countries who which have a loss in its output would have ambiguous welfare changes that affects its quality of life. In fact loss of output is closely related to the capacity for rapid reconstruction. Therefore for countries to manage its interest rate it needs to link its reconstruction on welfare.

RE Case Study- Resilience of Anxiety Management

A project started in 2010 in Bahrain to reduce the rising cases of 'chronic anxiety' disorder which required lots psychiatric hospital followup and costed a lot of money on the country economy directly and indirectly.

The goal of the project team was to eliminate cases of anxiety reaching the level of a where a normal person becomes a patient being treated with medication. A review of the integration of anxiety disorders with other relevant diseases in communities today (actual field survey). The team studied also the relations between psychosomatic symptoms and anxiety in the targeted community. The team horizontally studied (i.e. across all ages and all groups) the type and the level of anxieties sufferers have and interpolate this with a vertical study: i.e. the discipline or type of responsibility groups.

One of the basic resilience economy practices in such projects was to setup a communication plan between the concerned stakeholders, i.e. Family Medicine, Early Detection of Non-Communicable Disease, Use and Abuse of Anti-biotics Projects.

Anxiety was first re-defining the types of anxiety that need to be managed by health individuals daily and monitored by Primary Health Care Family Medicine teams, including health visitors and social workers. The team also defined the influence of the anxiety management project on the reduction of cost and freeing the business model of psychiatric hospitals and their services from being so resource dependent: i.e. reducing the need to increase the number of psychologists, psychiatrists and beds in line with increasing demand. A study the relation between anxiety disorders, drug abuse, alcoholic diseases, apnea and sleep disorders, elderly depression, etc.

The project team found that despite the availability of an "anxiety awareness programme" and well trained "anxiety management staff", there are few schemes for the early detection of anxiety disorders or their mismanagement. Therefore an intention was set to increase the capacity of the country, not only in psychiatric hospitals, for the early detection of anxiety disorders or their mismanagement.

A survey the stigma of fear about complaining about anxiety in Primary Health Centres, to family physicians, or even relatives. The team then started a gap analysis to indicate the management of social anxiety, the management of seasonal & environmental anxiety, and the management of anxiety disorder patients (through relatives and friends). Field study were carried to correlate quality of life and the capacity to manage anxiety.

A plan was set in relation to socio-economic factors taking into account all the (PESTEL) variables (Political, Economic, Social, Technological, Environmental and Legal conditions) and the capacity to manage anxiety. A pilot study shown the essence and depth of the problem which means it would suggest the different scenarios. For example in our case the pilot showed that, of 400 patients in anxiety clinics, the majority (66%) were women between the ages of 40 and 54.

The results of Pilot 1 showed that young people can also suffer from anxiety disorders as those aged 18 to 40 are the second most prone category. Applying a modified anxiety scale (GAF) and a Hospital Anxiety & Depression Scale (HADS), after this has been piloted in one health centre, to all primary care centres and train family medical teams to know how to utilise it, starting with health visitors, social workers and nurses. The results of anxiety on people's functionality flagged up the importance of its management. This help to start a change management programme to minimise the impact of resistance from family physicians to follow up the GAF or HADS forms and/or results, and to give treatment (without medicine).

A multidisciplinary team was established to re-train the primary care teams (as with the family physician teams) on the use of the form and, after it has been tried for 3 weeks, consider the types of challenge. Also this team was given the responsibility to carry out a second major pilot study with a sample of more than 1200 from different areas of society.

The success of the anxiety management model in one of the primary care centres was generalised and roll it out to collaborating centres, such as social development centres, clubs, main shopping centres, etc. Many citizens were trained to self-evaluate their capacity to manage anxiety. The results of this project managed to reduce anxiety related disorders by 30% in only 2 years.

authorHOUSE®

CHAPTER SEVEN

RESILIENCE ENGINEERING

Understanding Resilience Engineering

Resilience engineering can be interpreted from the science of ecology as to the capacity to return in short time after disruption occurs (Holling, 1996). Engineering resilience focuses on behaviour which is directed to create more stable equilibrium that would lead to speed of return to equilibrium. However, Pimm (1991) defines engineering resilience as the fast speed of return of a displaced variable to equilibrium state. The level of Resilience could be estimated by the amount of time taken for the displacement to decay to some the initial value. This definition applies only to behaviour of a linear system, or behaviour of a non-linear system in the immediate vicinity of a stable equilibrium where a linear approximation is valid (Ludwig et al., 1997).

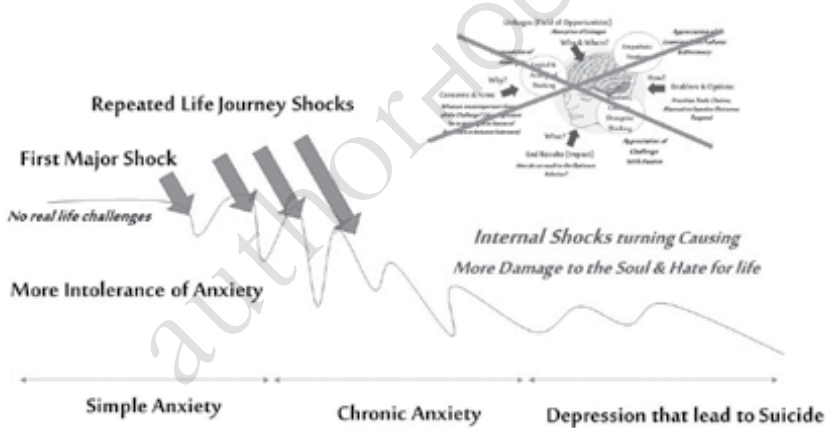
Engineering resilience therefore focuses on maintaining efficiency of function, constancy of the system, and a predictable world near a single steady state. It is about resisting disturbance and change, to conserve what you have.

Resilience Economy is made of resilience mechanisms and resilience engineering. As it is both an art and a science. Besides it is both structured and disruptive. Resilience Economy need two types of practices (resilience + economy). Therefore, resilience economy can't happen by coincidence, it needs intentional planning, training and executions with trial and error

attempts that builds our passion and our ambition. Also, resilience needs consistent exercise to meet the stamina of sudden unexpected pressures and the raise of the capacity of the organization or the society. For example, after the first major shock we might have more repeated life journey shocks that can build for more intolerance of anxiety if the simple anxieties are not controlled. If anxiety turned to be chronic anxiety it might leads as per Figure (7-1) to depression that lead to suicide. Resilience Engineering covers also the dynamic resilience, i.e. the ability to reconstruct and recover quickly, with known specific practices.

Therefore these non-controlled waves can increase the internal shocks and turn to be causing more damages to the soul and even hate for reason of existence, which highly deteriorates the Quality of Life.

Figure (7-1) The Influence of Anxiety on Quality of Life

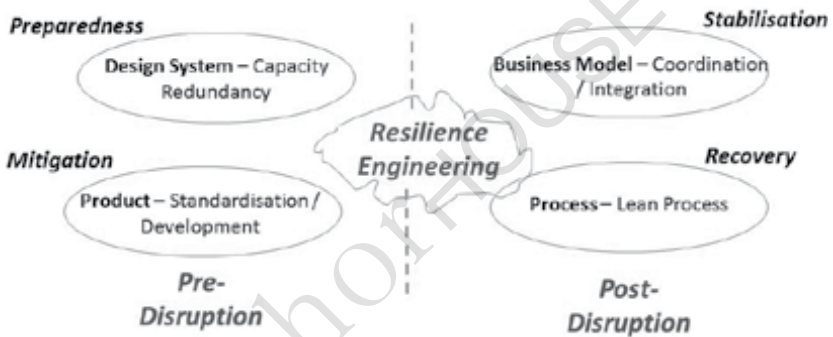


However if we started to look positively at challenges and anxiety shocks then we can create inspiration currencies that help to make us more ready for life challenges and create more psychological tolerance can be built. Then as we go along the more we accept challenges the better our learning would be. This is part of Inspiration Engineering that establish more forecasting and resilience that lead to both resilience economy and established socio-economic impact that leads to sustained legacy, as shown in Figure (7-2).

As shown in Figure (7-3) both the preparedness through the design systems and the mitigation of the product as an outcome could help to prepare for more resilience at the pre-disruption state.

In order to maintain resilience after disruption happens the business model need to be quickly have stabilising mechanism which should help towards better process recovery. Therefore, it could be said in summary that resilience engineering is about collections of mechanisms of preparedness and mitigation in the pre-disruption stage while maintaining stabilisation and recovery in post-disruption.

Figure (7-3) Framework in Resilience Engineering



Resilience Engineering is then about designs, systems, business model, products/services and processes flexibility. This collection of flexibility mechanisms can be seen clearly in the resilience of many world class companies whom manage to survive despite sudden waves of ethical, trust, political, economic, legal and social shocks. For example many thought that Ford motors won't survive after lots of economic instability, or Toyota would have a major loss after many environmental shocks in Japan, yet they both managed to survive. This is because they have built and engineered resilience in their system. After its gone in 2015 through a major wave of legal Volkswagen made great learning and developed more resilient production system strategy called (VPS) that became a model for many other global companies.

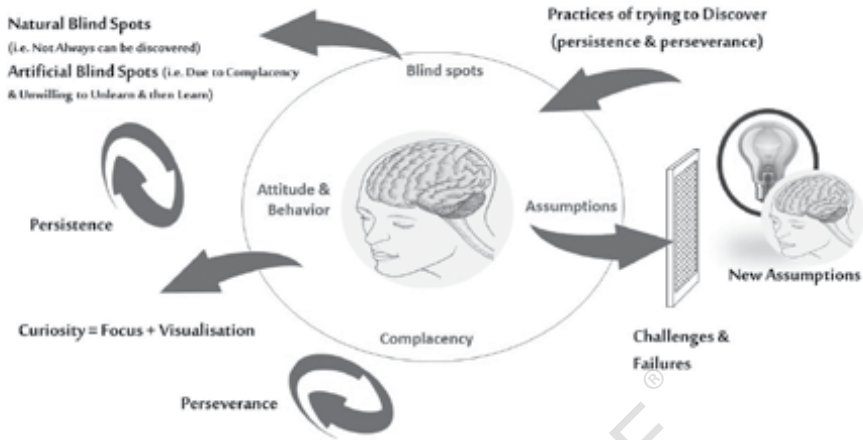
Resilience Engineering is followed in practice by many global companies, even though it is not appreciated as a name. Many leading companies as the fast food giant McDonald, or the largest furniture outlet Akia, or the largest Hypermarket in the world Carrefour, or largest car producer as Toyota. For example, Toyota Total Production System (well known as TPS) focus on resilient engineered concept as Just in Time (JIT). It depends on the pull thinking where designed systems of Toyota production would be supported with multiple sourcing and high experiential learning techniques.

All the designs, systems, business models, products/services and processes add flexibility and help to develop mitigation strategies that are similar to the Ripple Effect. This is again one of the unique competitiveness of any organisation or even a country. With Ripple Effect we can mitigate any disruption and have a controlled disruption framework.

Therefore, resilience mindset is full of curiosity, where curiosity = Focus + Visualisation. Resilient mindset can be based on complacency and perseverance. The resilient mindset should be more competent to overcome challenges, failures and also open for new assumptions. Hence resilience stamina is like a rocket ... you have to go down or burn in order to pass the normal zones and go to another.

As shown in figure (7-4) people would be more resilient with us, when we admit that we need or needed for the mindset to change. The minute we admit this, i.e. admit we were in total blind spot and this mindset shift was blessing, people would to extend their hands and hearts to help us. That moment of humility (from us) and humbleness (from others) is the moment of resilience we are always looking for.

Figure (7-4) Illustration of what makes a resilience mindset.



Resilience Story

An East European Women's NPO that work on equipping women to be strong and competitive in their community was evaluated for its ability to influence its socio-economy. A research on the women's development needs in the field. The strategic plan was evaluated too in relevance to the Key Business Factors of this Women NPO. i.e. Questions as how effective is the Women's Empowerment Programme in terms of entrepreneurship compared to the actual development needs of the women? Whether the organisation managed to create measurable Continuous Women Development, Women Lifelong Learning and improve the Women Quality of Life.

The need and priority of beneficiaries services were analysed by the project team. Then the team focused on assessing the cost and profit centres for this non-profit and for profit organisation. Level of strategic planning was evaluated in relevance to the required realised social impact measurements. Then, a re-evaluate for the type of 'Competitiveness Training Programme' needed for women in relation to the developments and changes needed in the socio-economy was carried. An evaluation for the outcomes of the tailoring and other courses in creating jobs or businesses for women. The type of research to increase women's contributions was specified.

Later the team gone to define and/or re-define meaning of women's empowerment at this time and in this situation/community. A measurement for what types of learning/unlearning will benefit these women was then carried along with seeing what types of training will focus on the development and competitiveness of employed women. Queries as how many women became job creators or became employed and earned decent salaries? Helped the team to specify the number of women beneficiaries who became self-sufficient after the empowerment programmes.

The team gone then specify the type of women who are really influenced by empowerment programmes and the type of these programmes conducted and which resulted in success stories. Based on this the courses were categorise: which are profitable, the type of profit, which are relevant to society, and which offer value added?

The project team then carried a market study: what does society need, what criteria are required for a market study, for what population and who needs such a study? A Weight for each course in terms of its profit margin. A reviewing for the sources of income: membership, entrepreneurship programmes, fitness, hairdressing, commercial courses, training and mentorship, psychological counselling, children's nursery services, vocational training. Building a Knowledge Management System for the current programmes in the NPO targeted to cover the courses according to demand, number of trainers, number of workshops, etc.

At the final stage the team assessed again how the priorities for women are now specified, especially in terms of the need for developments that would be most useful for women with low incomes. Consideration on how to utilize knowledge of he courses and experts such as textiles expertise in building a new textile industry in the country. The status of development i.e. ability of changing attitudes and behaviours. Questioning whether the NPO was successful in enhancing the competitive spirit of women, moving them from being dependent to being independent, or discovering how many of women graduates were unemployed or were employed after the NPO programme, or evaluating the reality of the growth in Women's

NPO services in order to move the organisation on to a higher stage with resources: changing the number of attendees, classes, etc.

Resilience Engineering & Design

We need resilience design in the services we use and we desire to use. If we observe the way we deal services are all around us, for example, using taxi, buses, parking, shopping, using libraries, going to dentists and dining in restaurants are made of specific touchpoints. When we encounter these touchpoints we start expectation vs. perception journey.

For instance a well-design menu, comfortable chairs and high hospitable waiter are all value added touchpoints that make up a resilient restaurant service.

Service design touchpoints defines is the resilience process of what type of type of interaction we should expect from all the type of customers and beneficiaries.

Resilience design tools focus on methods that can help us deliver an in-depth understanding of user behaviours, their likes and their needs, which can enable new solutions to be developed. The service designer should always evaluate the design points to make it work better for users, or re-engineer it to create an entirely new user experience. This what international companies hospitality industry as large successful airlines, hotels, food-chains tries to always do to stay competitive and even to stay in business.

Resilience design is divided into four distinct phases of 4D's: Discover, Define, Develop and Deliver, it maps how the design process passes from points where thinking and possibilities are as broad as possible to situations where they are deliberately narrowed down and focused on distinct objectives.

Resilience design work based on the 'big picture' thinking while other focus on specific project details. Balancing and linking the two is important to develop the best outcome. Most tools and methods can be adapted by altering the level of detail, sketching quickly or developing in-depth, depending on the outcomes needed or time and resources available.

The start of any resilience project depends on the level of is a period of discovery, gathering inspiration and insights, identifying user needs and developing initial ideas. Resilience engineering depends on the resilience designers that would look at the world in a fresh way, noticing new things and seeking inspiration. They gather insights, developing an opinion about what they see, deciding what is new and interesting, and what will inspire new ideas. Specific methods include: market research, user research, managing and planning and design research groups. Therefore, once the area of resilience is discovered we can identify the problem, the opportunity or the needs to be addressed through design.

Once things are discovered the resilience designer try to make sense of all the possibilities identified in the discovery phase. The definitions would focus on what matters most? The goal here is to develop a clear creative brief that frames the fundamental resilience based design challenges to the concerned organisation or community.

Once both the discovery and the definition of what is the most important resilience issue need to be designed or engineered. A period of development through experimentation are created, prototyped, tested and iterated. This process of helps resilience designers to improve and refine their ideas.

Key activities and objectives during the Develop phase are: brainstorming, prototyping, multi-disciplinary working, visual management, development methods and testing.

Resilience design then would end up with the delivery phase, where the targeted products and/or services can be launched.

The purpose of resilience engineering is to build rich knowledge resources with inspiration and insights. The beginning of every resilience focused project is marked by an exploratory phase where insights and inspiration are gathered. Social trends and socio-economic practices usually would be studied in detail to ensure that we are able to identify the problem, the opportunity or the need to be addressed as well as define some of the boundaries of the solution space. This exploration uses both qualitative and quantitative research methods and can involve both directly engaging with end users and analysis of wider social and economic trends.

This research builds a rich bank of knowledge that will inform the rest of the design process and act as a guide and inspiration to the design team. Once the findings are synthesised into a reduced number of opportunities we create a clear brief for the all stakeholders. Once the challenges to the problems solving are identified as opportunities for more resilience economy we start setting the stage channels towards actionable tasks.

The mass of ideas and findings are analysed and structured into a reduced set of problem statements. These are aligned with the organisational needs and business objectives to identify which to take forward.

During the resilience development phase the service design components is considered part of a holistic experience. In this phase the resilience design is an iterative process where developing and testing refines the product or service concepts until they are ready for implementation. Using design and creative techniques, the inspiration engineering team develop individual service components in detail and ensure these link together to form a holistic experience.

Once the model is ready to be generalised customers feedback mechanisms help to identify the needs. It is important to ensure systems are in place to capture user feedback, especially for services. The Deliver phase is also the point to feedback lessons from the process to colleagues and partners, sharing new knowledge, insight tools, or ways of working.

Resilience Story

Road Traffic Safety is an issue in many countries, whatever their development status. Through this case, we can show how resilience economy would overcome complex issues just by refocusing the organisation's intrinsic power and inspiring maturity in order to solve the problem.

An evaluation on the reasons for increases in fatal accidents and whether these are related to: planning and design, implementation and supervision, safety management, monitoring and control, and/or development and maintenance; were carried. An assessment of how the traffic team and police were working together to reduce the traffic bottlenecks and encouraging road developments was carried out.

The team targeted to reduce the fatal accidents without affecting the time that the driver take from point (a) to point (b) and without increasing the Traffic Safety Engineering budget. A study was carried on the targeted country to see why it is the highest in terms of fatal accidents compared to the size of its population (for every 100,000 vehicles). The included the type of knowledge required regarding the classification of the road and area: i.e. areas of: side roads, two-way roads, one-way roads, two-way roads with speed limits of 50KM, 100KM, etc.

The team studies also whether the PIARC Road Safety Manual is reference when evaluating the accidents and whether the black spots with repeated fatal accidents over 5 years are well controlled. The team benchmarked the international figures of the accidents which mentioned that 80% of accidents are due to human error; 10% due to vehicles design and 10% road designs. On the other hand, local figures mainly blame drivers: 93% human error; 6% road designs; and 1% vehicles.

The team questioned why there are 45 black spots (90%) in the Northern Area of the country. An in depth study of the 'black spots': junctions or sections of road where the accident rate is high (5 accidents annually) was done and this built cluster of accidents and repeated occurrences for a variety of reasons, such as speeding, inadequate sight distances, concealed

oncoming traffic, and junction is hidden on a fast road, poor or concealed warning signs at a cross-roads, and other unsafe physical conditions.

The project helped to specify the socio-economic outcomes that can be brought by the construction of multi-level interchanges and replacing roundabouts with traffic signals in certain areas.

The team then focused on building spirit of resilience through re-designing curved roads with more safety in mind and take countermeasures to minimize any frictions. Studies to discover the total number of accidents in relation to: fatal accidents, accidents causing serious injuries, accidents causing slight injuries, day time accidents, night time accidents, accidents at dawn, accidents involving pedestrians, and fatal accidents involving pedestrians, were carried out.

Studies on the types of collision to build better resilience in safety against accidents involving: rear end, pedestrians, obstructions, lost control, changing traffic lanes was followed by studies on the causes of accidents due to misjudging clearance, driving too fast for prevailing conditions, changing traffic lanes carelessly, following too closely behind another vehicle, losing control before an accident, errors of judgement, and/or being tired or asleep.

The project brought the following resilience economy outcomes to beneficiary country

A)Short Term: road markings, remarking centre lines, remarking and increasing the thickness of the existing bar marking, road signage, fixing additional warning signs, fixing additional speed limit signs, fixing chevron signs at bends, repairing existing flashing lights, repairing damaged pedestrian fences.

B)Long Term: fixing pedestrian fences with barriers on the median along highways, redesigning curvature alignments on sections of the highway, and implementing speed monitoring systems.

Resilience Economy Design

Design is what links creativity and innovation. It shapes ideas to become practical and attractive propositions for users or customers. Design may be described as creativity deployed to a specific end.” — The Cox Review

Design has many different definitions, but at its heart it is about the process of translating ideas into reality, making abstract thoughts tangible and concrete. Whether it’s for a new service, a piece of graphics or an innovative product, a number of key attributes underpin every design-led project. These fundamentals should inform the responses to the Keeping Connected Business Challenge, ensuring design-led solutions that enhance independent living and quality of life for older adults.

Resilience design is a type of design that focus on change of selective pressure points. Resilience would increase specially if we improve the endurance of these pressure points and improve the uncertainty efficiency. With RE Design we enhance the relations of design to enhance the communication within the model network.

Resilience Economy RE design focus on 3Rs (Responsiveness, Reflection and Resilience). These 3Rs are very related. I.e. The more you are responsive the more you can reflect and hence the more you reflect the more you can be resilient, as shown in Figure (7-5).

Figure (7-5) The 3Rs of RE Design



Responsiveness require that we think about our design challenge and how it would overcome the communication, the environment, the services and the organization systems in order to make it more of a dynamic environment. Once this environment inspire you to deeply dialogue, or spur ideas you would start to thrive to reflect.

As we grow and develop with more reflections we start to see the trees, fruits and seeds.

We start to see what are opportunities that exist for us within the structure of other places or organizations. As we grow and develop, might the changing conditions allow for new behaviours or new populations to thrive.

Nature versus nurture” is a psychology term related to whether heredity or the environment most impacts human psychological development (behaviour, habits, intelligence, personality, sexuality, aggressive tendencies, and so on).

In the “nature vs nurture” debate, nature refers to an individual’s innate qualities (nativism). Example: Nature is your genes. The physical and Personality traits determined by your genes stay the same irrespective of where you were born and raised.

Factors: Biological and Family

Ordinary creativity – capacity to create something new while imagination, improvisation, problem solving. Special, exclusive creativity – capacity to develop new, original ideas, knowledge, art, etc., that are valuable and acknowledged by societies, have impact on them.

In an ever-changing business environment we need resilient mindsets for both individuals and teams that could manage bring in opportunities out of sudden disruptions. Organisational behaviour and behavioural economics studies shows that teams can’t overcome any setbacks and challenges and organisational resources might be wasted if teams doesn’t have the collective mindset. Therefore, leading companies all over the world devote an enormous amount of time and effort to build the best resilient teams.

It's difficult to build resilient teams if team player doesn't have the guts to express themselves or admit mistakes. Therefore teams leaders need to mentor the utilisation of psychological safety to allow team members to make mistakes or disagree without negative effects. When team members feel safe, they're more likely to take calculated risks and be honest about their opinions—even when they're unpopular—which can lead to fixing small problems before they become big problems.

In the repeated observations studies we've gain from inspiration labs, we found that seeing the big-picture help the team to be selective in their actions and become more outcomes focused. While we found many teams are less resilient because of the uncertainty of what is essence of what they are trying to do.

The complex ambiguous, volatile and uncertain socio-economic environment that many companies work need therefore agile teams that have strong communication. Therefore, team members typically grow more comfortable with each other over time, this what leading football club tries to do as they believe that keeping turnover low is important for enhancing resilience.

Building also role model teams help teams to be more resilient as they are going to feel more comfortable to pick up on the same model or create their own success story. Resilient teams would have the capacity to look for lessons and change it to opportunities or change them to positive situations through their high learning abilities.

Resilience teams identify the key elements of a service and understand the links between all the different elements over time. Through such teams we identify problem areas in a service or areas where new things can be added and create empathy with different types of users.

Resilience Story

Eulergy helps connect businesses and academics for social good. Ben Byford founded Eulergy as a central site where businesses and academics can find each other. Students and academics can post information about their research which organisations can get matched to for collaboration, funding, data, resources and experience. Organisations can also post requests for research and get matched to those academics already interested in that area. Eulergy.com is live and anyone can register and post a project. It's currently free in beta. If you're a student or academic you will get an academic account, which will be free forever.

One project the team is running is between an interior design company working on art and wellbeing in hospitals. They are looking for art and psychology students to work with on a real project for a London hospital. These sorts of projects are amazing, as academics are able to gain data from the live environment furthering their studies as well as seeing the impact of their research in action. The Eulergy is working on addressing the lack of support for research within current higher education (HE) trends i.e. MOOCs (massive open online courses), higher student fees, enterprise focus, therefore the company is working on lowering the barrier to entry for small to medium-sized organisations to access graduates, intellectual property, and innovations from HE institutes. For more details on this story please visit: <https://www.positive.news/category/economics/good-business/>

Resilience Engineering and Consensual Behaviour

The essence for our eager for developing a resilience economy goes beyond any the need for economic gain to rather asking about what we don't know about making our communities and organisations more resilient and how we can make progress.

The concept of resilience engineering is built on the believe that we can influence the perverse behaviour of both individuals and organisation and

prevent it from deviation from the social norms. Through resilience we can overcome the uncoordinated attentions that seeks to achieve existing social norms.

With resilience behaviour the interference between social problems, deviation and disintegration are managed well. Also through this behaviour the needs of the community is met due to the management of frustration. With resilience frustrations are decreased gradually or at least controlled and therefore conflicts are managed thus the social fabric is maintained and the economy sustain its progressive development. However, without resilience the social problem negatively becomes a diagonal behaviour that demands confrontation and intervention.

Resilience engineering help to shift our organisations and societies towards empathy but with balance for consensual behaviour that sees the big picture and the socio-economic outcome. To give an example, even though we need nurses to be empathetic (feel the patient pain), we need them in the same time to be pragmatic to see the main purpose of this pain or realise that others have more pain, or even to appreciate the limitations that can be done in relevance to the targeted outcome.

With resilience engineering we are expected to control everything, and be like the grass that bends, but it doesn't break. Even in turbulent times or uncertain times, it's good for people to adapt and to embrace spontaneity. Resilience engineering help us to see good side of things and build a behaviour that have capacity to compromise.

Resilience Story

Resilience teams develop services that are unique despite pressure. One of the projects A service Safari is a research method for understanding services. Researchers go 'on location' and experience a service first hand to find out what service experiences are like. A Service Safari might be focused on a particular service (like going to Tesco), or type of services (like going to a supermarket). Alternatively it might look at a wider range of services to get an idea about what makes a positive service experience (like services where I can buy food).

Service Safaris are a useful exercise at the beginning of a design process. They help everyone gain a rich understanding of services and are relatively easy to structure. The key to a good service safari is to identify relevant, engaging services that reveal insights and provide inspiration to the design team. Each participant should record their experience in writing, or by using video and photography. Engaging with a service, observing staff, looking at users and documenting the environment and materials, helps participants identify how services deliver value to customers. A Service Safari can be somewhat haphazard so in a large group assigning roles is an option. Through sharing their experiences the team can build a collective understanding and begin to define what makes a great service experience.

Cohesive Community Engineering

The idea that humans, put into a state of crisis, will inevitably revert to chaos and selfish destruction.

When crisis occurs more often, doors are opened, volunteers are assembled, and care becomes the rule. The action that happens due to the repeated crises in Japan is a good example of a cohesive community and society on a large scale. For example, it was estimated that one million people took part in the cleaning up the country aftermath the Kobe earthquake in Japan. Such cohesive community help to distribute the response, with the support for the elderly and young people.

Italian families are another good example of cohesiveness in times of crisis. The Italian community spirit and mutual care uses cohesive engineering as a glue that keeps them together when problems appear. In Bangladesh, village cohesiveness is also unique which helped them to significantly face better natural disasters.

Ibn Khaldun since (1377) noted that the life cycle of civilizations often followed the rise and fall of group-cohesion, which is high in nomadic societies who would help each other to overcome obstacles and avoid being detached and/or uncooperative

Today we need more cohesiveness engineering since for generations whom are born post-wars. Studies shows that generation in the United States and Europe who having been through war and depression, could be more self independent that those whom came after.

Such generations whom seen the disasters of war would usually store days of food supply and would be would be more cohesive to work with neighbours in case of crisis. While later generations, raised on take-out food, theory-heavy educations, and virtual entertainment may find themselves comparatively ill equipped to do much about it.

Cohesive community resilience therefore shown to build capabilities that would overcome in shortage in knowledge. A survey by the University of New Orleans on hurricane evacuation plans found that over 100,000 New Orleans residents (many of whom lived in the areas that experienced the worst social melt-downs) had no means to evacuate: no car, not enough money for a bus ticket, no friends or family who could help them. In short the community was not cohesively engineered to coop with such disaster.

If we don't have cohesive communities we can momentarily build weakened or broken systems. A non-cohesive community would be unhealthy and unhappy and would always struggle even for moments of disasters or shocks or challenges. Such communities would be having difficulty in adapting to sudden changes.

Resilience Story

The Chinese One Belt One Road initiative is a very important initiative for resilience driven economies. The main motives for such initiative is to support the Chinese economy resilience through three overcoming great challenges as economic recessions, then to protect the Chinese economy in a world rapidly changing competition, besides keeping China focus on its national interests while it goes globally.

To build a prosperous future the initiative of “The Belt and the Road” launched by president Xi Jinping, in September/October 2013, has multiple dimensions: economic, social, cultural, political and civilizational. All these dimensions are responding to the needs of modern Chinese economy in the twenty first century and its guiding concepts in international relations. The initiative is a two- pronged approach: the Road and belt the second is the Maritime Route.

Structural Roles and Resilience Economy

In order to face organizational weakness or social disintegration resilience economy experts focus on the failures that come from the structural roles within the organization design or construction patterns.

When resilience changes in organisations and societies we have the following consequences: changes in the population characteristics, ecological patterns, economic construction and organisational patterns. Without structural organisation resilience most societies would suffer from many social, economic, demographic and ecological problems. Social problems arise when changes in a part of an immaterial culture do not coincide with changes in material culture as a result of varying rates of cultural change on both sides of culture.

Resilience Story

Peter Frykman, established (Driptech) due his resilience thinking mindset that found an opportunity in an important problem. Frykman found there is a lack of simple, low-cost irrigation for small-plot farmers. Hence Frykman developed a resilience economy driven product that help those small plot farmers to have irrigation system to water their crops during the dry season but with lowest cost. The uniqueness of this resilience design is that it is a social initiative that will address water scarcity.

Frykman got his idea while he was doing his Ph.D research in Ethiopia.t. He noticed that 90% of the world's farmers are small plot farmers, i.e. they work on five acres or less. Drip irrigation, which already existed, is the best solution, but everything on the market was too expensive, costing upward of \$1,000 per acre, or too tough to install. Frykman decided to make drip irrigation affordable, easy to install and maintain, functional even with low water pressure, and available locally. The new irrigation product

could be deployed anywhere for between one-third and one-fifth of the conventional price.

Due its resilience economy basis the potential for both financial and social impact is much larger in developing countries than in the U.S. because of the sheer volume of small-plot farmers there. India and China have roughly half of the world's 500 million small plot farms, which amounts to a \$10 billion market.

The pilot studies showed that the impact for this resilient product was influencing the socio-economy where farmers in India and China started to notice that this simple system was saving them water and labour while increasing their crop yields.

Frykman showed that “trickle-up” effect means we need to set goals for radical affordability, then make a higher-quality product. The product was piloted mostly in India since it has more small-plot farms than all of Africa, so if Driptech can establish itself there, it can address more difficult markets like African countries, where we’ve already reached hundreds of farmers through partners.

Cultural Diversity and Psychology

By the year 2100 about half of the world’s 7,000 or so languages are likely to have disappeared. As a result, information about cultures, their history, the environment, and the different ways that people think will also disappear. Therefore the world needs resilience to maintain the cultural diversity.

Languages die as the few remaining people who speak them die. Languages are disappearing most rapidly in five regions. When a language is lost, so is an entire culture thus different ways of thinking and different ways of using language are also lost. Many countries are working to save or revive dying languages.

Language helps to develop thinking and understand how to think, solve problems and use language in these processes. Working memory becomes more resilient enabled since it functions to process information and help to process rehearsal relate to how well information can be retrieved from memory. Organization of information relates to how well information can be retrieved and to what we can do with that information. Thinking involves not only retrieving information but also doing something with it. Deciding something, or solving a problem, or judging or creating or finding something would help to build a resilient mindset.

Collective (cultural) experiences can lead to broader agreement on definitions of concepts. Different definitions of concepts can lead to very different outcomes in problem solving, decision making, etc.

Diversity that leads to resilience comes when the constructive nature of memory is based on our making inferences based on profound knowledge. Given competing interpretations, we tend to adopt those that are in agreement with our schema. Diversity management requires resilience in the process of sequence of events that allow anyone to operate on “automatic” as long as things are predictable. Narrow sets of experiences can lead the individual to judge others’ behaviour from a biased perspective. Individuals and cultures with conflicting schemas frequently experience challenges in communication.

Diversity is needed in order to overcome the controlled thinking that would analyse existing biases. With diversity thinking we can optimise the outcomes through selection of better choices and decisions. Psychologically resilience is needed when we have resistance despite of stressors, adversity and challenges. Effective diversity help to establish practices to emotional intelligence, self-regulation and self-organization. Diversity is needed when dynamic protective factors have no personal trait, no inherited invulnerability, no disposition for action acquired in family and no analogy to biological processes.

To build more diversity acceptance we need more protection, repair, regeneration, stable relationship and emotionally supportive educational climate. We need more role models for constructive coping, social support outside the family, responsibilities in the family and temperament characteristics (eg, sociability). This means we need to have cognitive competences (eg, average intelligence). With diversity we can build more resilient characteristics as self-efficacy, positive self-concept, active, not just reactive coping behaviour.

Resilience Story

ConsciousLab is a platform to raise consciousness in business. We organise events and workshops as well as trips to India called Adventures to Consciousness. It’s an initiative that’s different to many others – we’re not here to make money.

ConsciousLab is in London and, in October last year, we started our activities in Geneva, Switzerland – the heart of business. We are also open to doing things in other parts of England if the demand is there.

The concept of consciousness is difficult. For me, it's awareness. Once you are aware of who you are and how you interact with other people, then you have choices to make. It's about empowering yourself through creating awareness to take conscious choices in life and in business. If you are stressed, decisions you take will be different than if you are conscious. When you are conscious of yourself and your environment, your decisions are so much more powerful because you're not taking them from a place of ego, distraction or stress. Emotions are so powerful. We very often take decisions from a place of emotion and it can actually have a negative impact on business. Being conscious helps you take decisions with a clean mind. Your judgment is less clouded.

The 'normal' way of doing business was no longer working, so we decided to organise a talk about the need for deeper change. ConsciousLab was formed after that.

For more details on this story please visit:

<https://www.positive.news/category/economics/good-business/>

Interdisciplinary Approach to Engineer Resilience

In view of interconnectedness and in the same time growing trend toward instability, resilient societies will need to better reflect on how they can grow into globalised societies. The concept of resilience can be adopted by engineering new interdisciplinary approaches that enable differing dimensions of societal development to link up with each other. The concept of resilient society in particular is a pragmatic way for building closely cooperating communities.

The European crisis, for example, and after ten years of many turbulence taught us how to deal with socio-economic hyper-complexity, i.e. having

many problems in the same time. i.e. being more interdependent from a single problem-solving approach. With resilience engineering we would prevent some problems to not become a permanent condition.

Resilience engineering helps to tackle problems in a separate and isolated way even though they are integrated and multi-dimensional. Resilience engineering focus on approaches that increase integration and sustainability through focusing on resilience points without losing multi-level governance.

Resilience Story

The Aster Group is a thriving group of companies based on UK to provide homes and housing-related services in central Southern and South West England. The Group own 29000 homes with 75000 customers.

Aster Group is one of the UK Housing Corporation's Lead Investors and provides development agency services to other organizations. Aster Group built it operating companies based on resilience model where there are a substantial degree of operational independence for each one, but they work closely together to gain maximum benefit from their combined strength and resources.

During 1997 Aster Group began new initiatives – ‘care and repair’ for elderly people, developing new homes outside their original base and putting their toe in the water of market renting being just three. This evolutionary change made Aster Group more confident of its capabilities and began to ask the more strategic question of where they might go from here.

Residents and other clients of Aster play a strong resilience role in influencing the operation, and surveys show that Aster enjoys high rates of satisfaction with the services it delivers, with around 90 per cent of tenants saying that they are very or fairly satisfied with their landlord. The strong growth over the years made it one of the leading development agencies that started housing association, and one of just a few not-for-profit organizations.

Aster Group practice resilience through its focused delivery on improving homes to modern standards whilst keeping rents stable which generated revenue surpluses. Aster is well known to building affordable environmental friendly houses to buy or rent, providing care for the vulnerable or elderly with well-maintained home services.

Aster built a resilient company culture that is always looking to transform the way they work to offer better services, extra value for money and more customer involvement. With assets exceeding £1 billion.

Lego & Resilience Economy

The notion of resilience was first introduced in the 1950s in the natural sciences and later adopted by psychology and the educational sciences. Since then psychologists employing the concept of resilience in multi-disciplined environment and developed many platform for interaction between such natural phenomena and positive thinking school.

To inspire all business communities to practice resilience we should encourage the creation of economies that are based on a shared, durable, inspiring and caring for all. All of us remember the game Lego. I guess most children in the last 6 generations played the game or competed with their selves or with others to make a tower of the Lego blocks, as tall as we can. We usually emphasis the blocks strengths from the bottom and the middle of current tower to make it taller. Sure, you can make that tower really tall, but the taller it gets, the weaker the structure would be. This is exactly also what happen in the current economies. Hence, stretching our resource based economy as tall as with using the same limited resources is not sustainable. Actually we create more risks, as we build more emerging economies with blocks of that are based on similar none renewable resources, in order to accelerate the growth and not outcomes.

Building an economy based on resilience does not grow in an environment that extremely based on extracting scarce resources, but rather on being more independent of resources or persistently trying to redistribute it widely. Lego strategic games teaches us how to be extract resources and persistently

Resilience needs love and any economy to really survive it needs a healthy relation that based on the synergy and energy of love. While most people this of the economy as being about money, i.e. dismal driven economy, we are talking about an economy that learns from the balance roles for Lego tower, i.e. caring about the bottom of the economy and what matters is the quality of life and the value of the moments that is based on giving and receiving. When it comes to resilience you don't need anything more except the understanding the concepts of giving and receiving of the targeted socio-economy.

While resources and money based economy begins with a claim of simplifying things. Love and resilience based economy is more of appreciation of the simple little things that fitted the much larger something, i.e. the memories and values of life. For example a small gift for your mother is meant not in its value but in the moments of gratitude for what she sacrificed for you. Words doesn't describe the economic values that reflects the feelings of the giver and the receiver.

If people are controlled by resources and money their life gets depersonalized. Unfortunately we really got so controlled with resources to the extent that we believe that any other economy that would come based on less resources is more complicated and even not possible at all. This paradox makes resilience is based on pull thinking, i.e. to pull in opposite directions when there sudden pressure.

Resilience Story

Resilience Universities are unique in building both theoretical and knowledge that thrives in practical civic society. Today the resilience of the universities are reflected in the collaborative knowledge network of institutions that have opened their space and environment with semi-free education models with intensive interactions. Coursera is just of example of more than a dozen models that many leading universities as Harvard, MIT, Cambridge and Berkeley are part of. Berkeley University resilience economy model helped to enhance its knowledge usage conceived as an infinite circle between practice-theory-practice which in turn enhance the

university goodwill value due to social resilience. The rise of multiversity specially in USA have helped to close the gap between academic and industrial institutions

Social Innovation Role in Engineering Resilience

Social innovation is highly needed in society that is going to face complex challenges. Whether we need to be resilient to environmental challenges, or instability of financial markets, sudden demands or shortages of water, or terror attack, or growing global social inequality, or energy blackout we need to establish practices of social innovation.

In social innovation the resilience focus would be on safety factors rather than risk factors. It is an attempt to positively cope with a complex and uncertain environment that withstand versatile crises.

Innovation school of thought focuses disaster transformation rather than disaster management. Therefore with social innovation the mindset would be curious to investigate the criteria for establishing healthy balance and capacity of agility that would maintain stability and develop robustness in case of crises. It is a total shift and differentiation in focus and a mindset that was targeting only how to react with crises. The first query might bring in a sharing economy mindset, while the second query only bring in a strategic contingency planning mindset.

The concept of resilience economy is straight forward. The more societies would be involved and engaged, the more we would have transdisciplinary knowledge integration. In order to analyze and tackle the proliferating multi-dimensionality of future social challenges appropriately, these processes will need to operate in organic cycles between mutually checked and balanced powers rather than stiff hierarchical structures.

Resilience economy mindset empower social innovation with visualisation for future viability instead of only spirit of resistance. This increase the community and organisations, besides the individuals ability to manage crises with intrinsic powers which exploit self-development.

Today resilience economy practices are becoming more and more accepted as an innovative social movements that focus on improving social processes. Same as social innovation resilience economy is more of a field discipline that targets to build success stories through the persistence focus on the social integration.

Resilience Story

Due to its vulnerability to natural disasters combined with state-of-the-art know-how, Japan represents another source of inspiration of such implementation of the resilience idea. On the one hand Japan stands out with extensive experience in developing disaster prevention programs, large-scale training measures and advanced technologies to mitigate damage. On the other hand the island nation is also an example of cultural practices that promote the civic spirit of resilience in the people's ability to withstand suffering featuring a high degree of discipline and solidarity. The Japanese term "gambaru" expresses this mentality. It means persistence or giving the best until the very end. A similar popular saying for times of crises has been used in England during the Second World War, namely "Be calm and carry on." Many in the Anglo-American world interpret this as the mantra of resilience until the present day, although it may be to some extent reductionist.

Resilience Engineering in a Strong Civil Society

Since the end of the 1990s the notion of resilience has been increasingly applied to corporate contexts, but not really spread in civil society organisations. If we manage to create highly passionate psychologically resilient managers and employees the whole society would be more ready for resilience driven economy. This should help the society to face challenges as youth migration and cultural shifts, and sudden exponential change in the technology, or ready for the unexpected disruptive innovation, or the consequences of rising populism.

However, in face of all of this we need to establish Resilience Engineering practices that handle the inherent volatility, the uncertainty, the complexity and the ambiguity during any management of change. With resilience engineering we can establish trans-disciplinary, systemic resilience that help address the societal needs while being more ready for multiple crisis scenarios.

Building a resilient civic society means it would take socio-economic challenges into consideration. Resilient societies focus on emergency preparedness and response as well as systemic mitigation of damage and this is basically what resilience engineering is about. All the factors that influence social and technological change help to harmonize society within a fast-changing environment. Therefore resilience engineering practices would help to enhance the ability to deal with complexity that start with the establishment of civil society initiatives.

Civic society initiative as de-centralizing energy generation and self-sufficiency are just another example of resilience engineering. There are today many similar examples of social change that resilience engineering is leading from the bottom up, thus distributing risk into a flexible network instead of concentrating it in one vulnerable lead point. Certain resilience engineering initiatives have change the way communities live and such initiatives are expected to be seen more in the future.

The initiative of Transition Town movement or the Austrian project Zämma Leaba (= Live Together) is one example of those initiatives that try to anticipate the consequences of crisis and prepare them in time.

More and more we started to see civic society involvement in open cafe discussions, social platforms, and most of change Labs (as the inspiration labs and resilience labs). Such knowledge exchange and learning platforms develop opportunities for innovation and resilience.

In 2010, the German Pestel Institut pioneered a method that focus on analytical approach of stocktaking, incorporating 18 markers from the areas of social affairs, housing, energy, land use, traffic and economy. The project was focused on assessing the capacities of regions and cities to act

flexibly based on the availability of resources and social capital. The whole project focused on the role of civic society against social conflicts.

Current studies lead by OECD, shows that communities of the 35 most developed nations would be more immune to deal crises due its high quality of life standards that comes from is established social welfare. This was shown clearly during the Spain, Greece, France and even some of USA different socio-political, socio-economic crises. At the same time, research in relevance to possibilities of social engineering such as comparative studies on social welfare systems, happiness and conflict indicators can support resilience engineering to bring more powerful outcomes.

The resilient society needs progressive thinking in integrating technology, democracy and society. Therefore we need a network of society that would build stronger and yet more flexible fibre. This requires a civic society that would work as a hub for producing and transmitting a multi-disciplined collaboration program. Multiple contemporary challenges on resilient societies requires also an integrative, transdisciplinary approach enabling to understand and to promote the “overall” or “general resilience” of a society.

What can already be noticed today is that resilience is becoming a key term in social movements that trigger social initiatives from the bottom up through persistence models. Civil society is becoming a significant element in the discourse on security resilience by forming networks of publicly organised aid in serious crises on the one hand and on the other act on their own account by contributing on an equal level to compensate for lacking or insufficient capacities by the public hand. This can be seen are many successful model even in developing countries as in Turkey, Tunisia, Morocco, Brazil besides the well-known reference models in Italy, Spain, Australia and Britain.

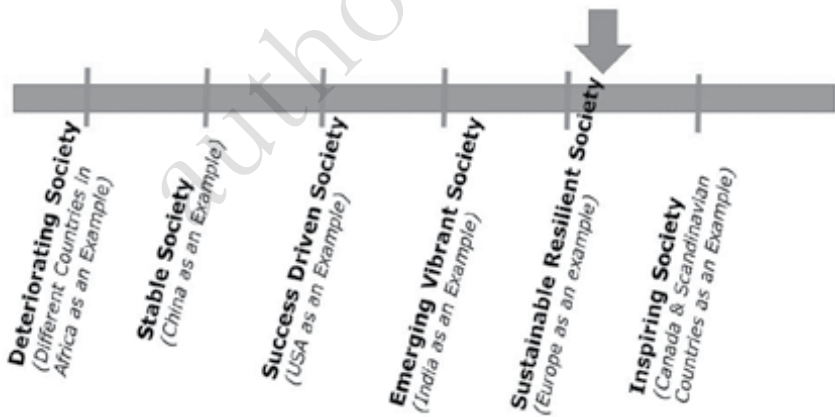
The vibrant civic society in country is expression of its resilience economy, since such economy would be dependent not on it GDP or country resources, but rather in its contribution to the civil society that label it with resilience. Such society to be achieved it needs to be resilience engineered. Therefore, the quality of public housing, energy or traffic and bottom-up

contributions of the civic organisation are considered more than ever today to a gauge for the level of resilience in any society.

Social movements and civil society are becoming indispensable actors in coping with global complexity. As in this complex paradox we need to deal with transnational organisations and global citizens and knowledge workers. Hence in era where democratization of knowledge is the trend it will be very essential to society actors to becoming indispensable agents of distributing, spreading, collecting, producing and re-distributing knowledge.

Resilient civic society is more of sustainable society (as Europe) than being stable society (as China) or success driven society (USA). As shown in Figure () resilient society is even more than an emerging vibrant society (as India). It is a society that is ready to be a source of inspiration with crucial factors that bring in sustainable environment and social harmony. The gauge in Figure (7-6) is meant to encourage the sharing of the different approaches in order to have better dialogue.

Figure (7-6) Gauging the Resilience Society as per its civic interaction.



The civic interaction is what gauge even a competition driven society to be even lower than the targeted gauge of resilience. When sustainability is set as criteria we'll see that even with the Chinese strong emerging economy, its collective socio-political climate, Confucian, Communist, semi-socialist regulations that lead to stability, but prevails many challenges toward

sustainability. However when see Europe and its semi-collectivistic culture of solidarity and Welfare systems with strong orientation towards environmental preservation and safety, sustainability as a general interpretation of resilience has become more important than both individual success and stability.

RE Case Study- Resilience of Cuban Healthcare System – Part 1

0- Introduction

Cuban Healthcare is considered a reference model for all those whom appreciates the power of resilient designs which can achieve more with less. The Healthcare system in Cuba is not only focused and available to all the population equally and free of charge, but it has managed to be more preventive than curative services are integrated, The system is known to be very transparent where the public participates in the health system's development and functioning.

In Cuba the healthcare activities are fully integrated with the socio-economic development of the country. Since the early 1960's a Rural Medical Service (RMS) program was established, posting hundreds of newly graduated physician volunteers in remote areas over the next decade. By 1970, the number of rural hospitals had reached 53. This was the beginning of ongoing efforts to distribute personnel and facilities according to health needs, and a precursor of later models to embed health professionals in the communities they served and meld public health with clinical medicine. Part of the mandate of RMS physicians was to play a role as health and hygiene educators as well as clinicians. During this period, national programs were also established for infectious disease control and prevention, targeting principally malaria, and acute diarrheal and vaccine-preventable illnesses.

2. Early Enhancement of the system- Resilience.

As the Cuban learned more and more from studying patients problems such as having too short time with doctor compared to long waiting times while there were low followups and medical care inadequacy.

These findings led to the 1974 decision to create a new model of community-based polyclinics, locating essential primary care specialists such as obstetrics and gynaecologists, paediatricians, and internists in virtually every Cuban community. Many clinics also included dental services. The point was to provide comprehensive care to residents where they lived.

3. Resilience Design influence on Cuban Primary Care

Policymakers reasoned that health and illness are influenced by the interaction of people with their environment, so health workers should understand not only the health status of their community, but also the biological, social, cultural, and economic factors that affect it. This was an early recognition of the importance of the social determinants of health. Medical school curricula were redesigned, residency training programs were revised, and polyclinics were included as teaching sites, as primary health care became the lynchpin of the emerging national system. These efforts were accompanied by establishment of 4 main national programs, designed as both guides to practice and yardsticks for measuring success in improving population health: maternal and child health, infectious diseases, chronic non-communicable diseases, and older adult health. By the early 1980s, Cuba also began giving higher priority to tertiary care facilities and research, expanded accreditation of medical specialties to 55 fields, established national institutes as centers of excellence, initiated and quickly accelerated investment in biotechnology, developed national programs for prenatal screening, established an organ transplant program, and installed the first nuclear magnetic resonance equipment in Latin America. The resilience transition of these changes broadened healthcare coverage, boosted the technical capacity and resulted in more efficient health care delivery, creating an improved health status typical of the developed world.

4- Resilient Family Physician and Nurse Program

In the early 1980s, Cuban health officials decided their country would become the first in the developing world to cover the health needs of

every citizen founded on comprehensive family practice. Cuba was by then an aging society with morbidity and mortality concentrated in an adult population plagued by chronic ailments, such as heart disease, cancer, and diabetes, rather than in children or infectious diseases. Control of such chronic conditions requires both medical care and long-term prevention strategies, particularly in a society with limited resources. Since 1983, the resilient Family Doctor and Nurse Plan was piloted in a blue-collar Havana community and then spread as a model for the rest of Cuba. Each Cuban neighbourhood was equipped a team of practitioners that would both coordinate medical care and lead health promotion efforts based on evidence gathered about the specific health problems faced by the community in that geographical catchment area, with the local polyclinic serving as the hub for some 15 teams posted in the surrounding neighbourhoods. In effect, the principles of public health and clinical medicine were combined into a single professional duo emphasizing prevention and epidemiologic analysis with improvement of individual and population health outcomes as the central purpose. Promote health through positive changes in the population's knowledge, sanitary habits, and lifestyle which prevented the emergence of diseases and damage to the population's health which guaranteed early diagnosis, ambulatory services, and hospitalization, as well as resilient timely, continuous, and comprehensive medical care in the community.

The resilience of the Cuban healthcare system developed a community-based rehabilitation for physically or psychologically disabled persons. The resilience development of the communities helped to achieve improvements in neighbourhood environmental health include improvement of homes hygiene. Achieve improvements in social relations and integration of neighbourhood residents and families. The resilience of the Cuban program managed to reduce the dehumanization that occurred due to proliferating technology and sup-specialisation.

Family physicians and nurse teams were assigned to live in the neighbourhoods where they practiced, literally next door to their patients. Originally, each team was responsible for improving and maintaining the health status of 600 to 800 people (120–150 families) in their catchment

area, generally holding office hours in the morning and reserving the afternoon for house calls. More recently, warranted by improving health outcomes and with thousands of family physicians serving abroad, teams now can be responsible for up to 1500 people.

In rural areas, the patient numbers are closer to the original concept to preclude the necessity for rural citizens to travel long distances to the family medicine office. Family doctors and nurses have also been stationed in large factories and schools, on board ships, child-care centers, and homes for senior citizens, among other settings. Although remaining doctor-centered by all accounts, the role of the nurse in this team is a defining feature: the nurse usually spends years serving in the same neighbourhood, whereas physicians may either do the same or rotate out after their family medicine residency is completed. Thus, the nurses are the glue that keeps this duo closer to the needs of the families and individual residents.

authorHOUSK®

q u t t e r

CHAPTER EIGHT

MEASURING RESILIENT ECONOMY

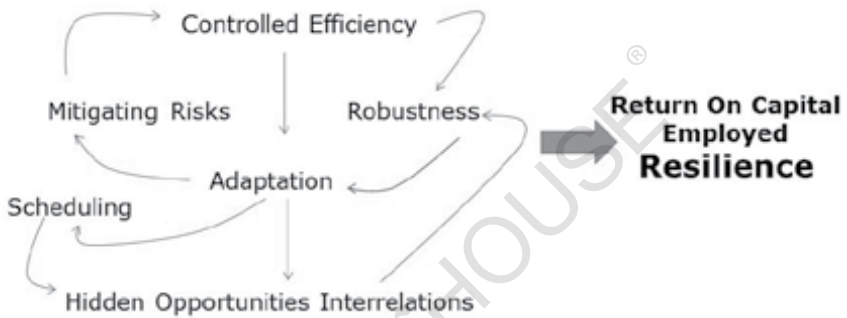
Setting Conditions for Resilience Measurement

Resilience is about trying to set the proper conditions for sustenance of survival. Without effective type of return on investment such as survival rate, ability sustain, etc; we would not have any economic value for resilience. Since the capacity for resilience directly influence the service level of any individual, organisation or community, it is surely a source of competitiveness that need to be measured in order to be differentiated from the point of cost and/or strategy. Resilience can be a source for controlled efficiency that is optimised by the management of costs and inventory, production and supply chain.

The robustness of any element depends on its ability to stand along lots of pressures while mitigating risks or increasing its return in relevance to work or investment employed. However, this robustness need to be measured in order to thrive its benefits. By setting the conditions for resilience measurement we can raise our ability also to meet schedules and discover hidden opportunities interrelations. Return on Capital Employed (ROCE) is a very good measure to check the reliability of resilience design. With ROCE we would check whether the design would reduce the redundancy to the minimum while enhancing the capacity for agile responsiveness to the optimum, without damaging the development in the product or service level or efficiency progress.

Resilience engineering would help to control any vulnerabilities that comes from resilience components development or excessive capability development. As shown in Figure (8-1) the moving links between controlled efficiency, robustness, adaptation, mitigating risks, scheduling and the hidden opportunities interrelations can help to create the best conditions for resilience driven economy which would have high ROCE.

Figure (8-1) Return on Capitals Employed from Measurement of Resilience Economy



Resilient people, they posit, possess three characteristics: a staunch acceptance of reality; a deep belief, often buttressed by strongly held values, that life is meaningful; and an uncanny ability to improvise. You can bounce back from hardship with just one or two of these qualities, but you will only be truly resilient with all three. These three characteristics hold true for resilient organizations as well. Let's take a look at each of them in turn.

Setting the conditions for resilience measurement means we'll build a culture with an optimistic nature. In extremely adverse situations, rose-coloured thinking can actually spell disaster.

Resilience Story

The UN have set for example main pillars to manage drought. Besides drought preparedness and planning, UN have set more advanced drought monitoring and early warning, to enhance its recovery capability through vulnerability assessment and drought risk mitigation measures. This is a total paradigm shift, in UN direction and level of responsibility.

Opportunities for growth and development, even in regions vulnerable to drought, will open up if build a resilience recovery regime in areas where water is sufficiently available. This would reduce the impact of droughts and reduce also the human sufferings that comes after it. Recent droughts in South and Eastern Africa, large parts of Central America and the Caribbean and the Asia-Pacific have demonstrated the importance of resilience engineering and recovery practices.

It is an accepted fact that droughts cause the loss of agricultural production and livestock. Nowadays, it is recognized that drought also causes significant secondary impacts in the energy, transportation, health, and other sectors.¹ Droughts cost billions of dollars to the global economy with many people having to migrate for work and better economic opportunities. Droughts have also a clear negative impact on human security and conflicts. For example, the '2006-2010' prolonged drought in Syria is often mentioned as one of the drivers for the migration crisis in Europe. A similar pattern is unfolding in Africa. The potential for conflict is arising in the long term as droughts render land less productive. With droughts destroying more land, food insecurity and the collapse of rural livelihood systems are becoming the new drivers of conflicts and forced mass migrations.

Measuring Resilience of Social System

This essay explores the dynamics of resilience in social systems. Rather than presenting a specific hypothesis and testing it, I offer an invitation to thought. I first introduce a theoretical model for considering different facets of resilience, and then illustrate these dynamics and briefly discuss

how to consider the current dominant system in this light. In the face of climate change, ocean acidification, dwindling freshwater, disappearing wilds, and more positively the rapid expansion of technological innovation, the range of circumstances facing our species and societies has been perhaps never so uncertain over such a short time frame. Understanding how to prepare and react to this range of circumstances (rather than any specific scenario itself) is the basis of resilience thinking.

What does a resilient system look like? In general, I think of social, ecological, and even personal resilience as the degree of disruption a system experiences in response to changing circumstances. In other words, with every change in conditions, whether in climate, energy, or finance, a system will undergo a series of internal changes—physical, institutional, and even cultural. Whether those internal changes serve to amplify or dampen the initial shock is the core of the resilience framework presented here. As with riding a bicycle, social and ecological systems do not completely rearrange themselves whenever they are faced with a bump in the road; instead, small adjustments can serve to moderate the chain reaction set off with every disruption. While these adjustments can accumulate and lead to significant change over time (as if a road bike were able to morph into a mountain bike after repeatedly encountering rocky terrain), this type of change differs meaningfully from situations where internal changes magnify the initial shock, leading to a fast (and likely traumatic) reorganization. “Reorganization” in this case is a bit euphemistic—the breakdown of social institutions and physical capital can often mean extreme suffering and death for those who go through it; one can imagine the failure of the state in Somalia or the devastation following the earthquake in Haiti.

It’s essential to recognize that in this framework resilience is a dynamic concept; it’s an attribute of how changes amplify each other within the context of a constantly changing system, rather than the degree of deviance a system experiences from some hypothetical “steady state” benchmark. This perspective touches on a broader debate about the nature of resilience in both ecological and social systems; one criticism potentially levelled against both the steady-state vision in economics presented by Herman Daly and

the “balance of nature” view(s) in ecology articulated by Frederic Clements and H.T. Odum is the implied notion of an “optimal” state or size for an ecosystem or society, rather than a vision that encompasses the radical shifts in complexity and structure that have occurred throughout history as conditions have changed. This debate is important for understanding resilience, and will be addressed in greater depth in the follow-up to this piece, forthcoming in a future issue of *Minding Nature*. However, for the purposes of this essay, intended instead as a walkthrough of the elements that make up a resilient system, these issues are relevant in the same way that fluid dynamics are relevant to a carpenter—surely related, but not needed to be resolved in their academic entirety to get a handle on the sound practices involved in building a roof.

Resilient Organisations Accomplishments

Developing immunity that would help to rebound it from adversity, is an accomplishment aim for any resilient organisation. Resilience organisations as Google today set their accomplishments in relevance to their developed immunity. Hence, this build for them an environment wherein they are successful in utilising successive approximation even in cases of increased difficulty and rising work complexity.

Resilient organisations provide encouragement, support, and even mentoring for its people so that it enhances the human resilience and its interpersonal support. Google for example use the latest finding from the neurosciences to provide basic training in how to manage personal stress in order to enhance their resilience and accomplishments. There are many companies that employ such resiliency traits and where they even invest in their client base.

At a time when the travel industry was undergoing a dramatic decrease in demand, American Express Platinum Travel Services sent a gift to loyal customers as a way of saying “thank you.” Such frequent customers were given several hundred dollars’ worth of travel-related items including carry-on luggage, an iPod, earphones, and a digital video camera.

Resilient organisations are innovative in their accomplishments in times of adversity. For example, at time when the music player and phone industries were commoditizing their products, Apple introduced radically simple and beautifully designed products that differentiate is brand.

One of the main resilient organisations is the invest in their leaders. In a time when government agencies are demanding more and more from their people in times of recession, Singaporean government focused on enhancing their training programs with focus on different direct and indirect approaches of resilience psychology.

If we study Kimberly-Clark accomplishments we would see that it focus on being pioneer in occupational health promotion. The company unique survival can be truly related to both economic manoeuvring and its commitment to employee loyalty that experienced physical fitness, nutrition, and stress management for them and families since the early 80's.

Organisations that push materialist accomplishments, i.e. increasing conviction that the ends justify the means, increase their organisation vulnerability to a very dangerous level. The Volkswagen diesel issue is just again one recent example of we mean. The problem simply was that Volkswagen created targets it could not fulfil.

To build an accomplishing resilient culture, companies need to focus on how they achieve development not growth only. Therefore meeting targets won't be an issue, the issue would be whether the company managed to build a long-term commitment to ethics, sustainability and with all stakeholders across society engaged.

Resilient cultures embed their explicit conversations around ethics and values that are reflected into all their strategic planning, decisions and practices. Such companies believe that RE is a powerful tool that drive both the individual and organisation behaviour in the right direction. This resilience would lead the company to avoid, for example, paying any bribes. This therefore would protect its reputation from being a company that is willing to pay bribes and hence won't be abused by more bribe requests.

Accomplishing such resilient cultures take time to build and develop, but the rewards for the company are enormous. Results include engaged and empowered employees, thorough and considered responses to changes in the external environment, enhanced reputation and stakeholder relationships, and inspirational leadership. And, most importantly, the organisation becomes truly sustainable.

Resilience Story

The Greater Manchester recognised that, despite its strong track record in attracting foreign direct investment, its firms are less internationally-oriented than might be expected of a conurbation of its size, and so it outlined an Internationalisation strategy which focussed on six priority markets, alongside a strong implementation plan. However, on the whole, understanding of their wider context seemed relatively undeveloped.

Economic Resilience Dynamics

Resilience reflects the exchange of the ideas about development issues. Resilience Economy (RE) is about balancing the welfare impact whether in time of piece and disaster. Therefore, RE does not only depend on the physical characteristics of the event or its direct impacts in terms of lost lives and assets.

Resilience economy targets to establish welfare impacts which depend on the ability of the economy to cope, recover, and reconstruct and therefore to minimize consumption losses. This ability that RE build can be referred to as the macroeconomic resilience.

Macroeconomic resilience usually depends on instantaneous and dynamic resilience. The instantaneous resilience focus on the ability to limit the magnitude of immediate losses be it materialistic or psychological. While the dynamic resilience is about the ability to reconstruct and recover.

Welfare impacts depend on the dynamics of micro-economic resilience, which is about the ability for managing the distribution of losses or

mitigating causes of vulnerability. When we are economically resilient we would be more ready with pre-disaster income and would have the ability to smoothen or absorb shocks. For example, our economic resilience would be more if we manage savings, borrowing, and insurance or have established mechanisms for being autonomous and sharing risks. In large countries, since the scale of the event and the scale of GDP measurement, a large shock for local populations can hardly be visible on national GDP. It does not mean, however, that welfare impacts are negligible.

Resilience Story

One of Nudge resilience economy based stories was conducted by the giant retailer Woolwich. Woolwich in south-east London had a problem with anti-social behaviour which was alarming during 2011 riots. Several Woolwich shop windows were smashed. Woolwich applied resilience engineering by drawing infants images on the shop shutters that protects the shopping windows. The technique that Woolwich applied was meant to manipulate the bad behaviour by melting the heart and mind with the sight of infants. This moved helped to reduce anti-social behaviour by 18% in Woolwich.

Measuring Resilience by Well-being

Resilience and wellbeing are very inter-related as they cover the main aspects of life that are directly and intrinsically important to people. Both resilience and wellbeing focus on outcomes rather than just outputs. If we take the resilience and the wellbeing from an educational dimension, the measure would focus on the development of quality of life rather than just focusing on competencies or quantitative measures as number of students graduating or getting jobs only.

Therefore we can say that both resilience and wellbeing includes outcomes that are both objective (i.e. observable by a third party) and intrinsically subjective (i.e. where only the person concerned can report on their inner feelings and states). Both resilience and wellbeing recognise that objective evidence about people's life circumstances can be usefully complemented

by information about how people experience their lives. They both need to measure outcomes across population to analyse disparities associated with age, gender, education and income.

OECD focuses on the broader natural, economic, human and social systems thus assessing both resilience and wellbeing capital stocks and resources.

Monitoring the stocks of resources that exist today but that can help to maintain well-being over time provides a first step towards resilience economy. For example, statistics that provide snapshots of people's lives in a country as Brazil gives objective information about the conditions in which people live, and the opportunities they have in life and their capacity in managing sudden aspects of their lives. By building a broad picture of people's lives in different countries, we can target what to enhance in their resilience.

There are today an increasing consensus about the parameters of wellbeing that would develop an organisation or even a country resilience, such as income and wealth, jobs and earnings, housing), and quality of life (health status, work-life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, and subjective well-being). Differences between men and women, older and younger people, higher and lower income groups, highly educated and low educated would need to be considered too.

Resilience Story

Sport was a main element in writing history of strong countries. This book, edited by Richard Pomfret and John K. Wilson analyzes the economic evolution of sports over the last 150 years, from a pastime activity to a big business enterprise. It begins at a time when entrepreneurs and players first started making money from professional sports leagues, through to the impact of radio and TV in the twentieth century, and onto the present day. The book describe professional team sports and the impact of international events such as the Olympics in comparison with the modern sports industry. Pomfret and Wilson synthesis why sport as a profession continues to attract a large number of spectators and participants. The editors collected papers that reflected good the impact of sport on issues as players migration, labor market restrictions, stadium arrangements and the rise and fall of workplace provisions; which are related to socio-economic influence.

The book covers history practices and policies peculiar to the sport industry which developed over time. This historical perspective casts light onto the development of specific practices such as labour market regulations and public policies, which have become more prevalent in the modern age. Starting with a strong statement “Sport is a multi-billion dollar industry”, we believe that the book failed in giving enough review why it is so and would even increase in the future from both socio-economical and even psychological point of view.

The Sports Economics is good starting chapter however the chapter on foreign players in Japanese professional baseball we believe undermines the importance of the theme of the book and the first chapter. We felt that the forth chapter on Economic History of the Tour de France was out of context or misplaced. The book makes a clear link between Sports Economics and the development of transportation which help to reflect on the increase in the players’ wages, especially after the industrial revolution. Improved transportation allowed players and spectators to travel for long distance. Changing focus of sporting competition from regional to global.

The book also show how the technological changes increased the economic significance of professional sports in the 20th century. Therefore is a good reference for researchers whom looking to understand the transformation of this field from participatory to spectator sports and how the popularization and commercialization of team sports was a direct consequence of the industrial revolution. It would help anthropologists to dig further how the development wages allowed discretionary spending beyond food, shelter and clothing (Pomfret,2011). Specially that we still have in certain countries the same situation, i.e. it is still about food and shelter.

Resilience Assessment

Community-needs assessment help to develop a public space to gather and share ideas and creativity. Forming a disaster preparedness initiative that helped to develop socio-economic in relevant to healthcare, community services, more focused educational program for youth and senior citizens that enhance lifelong learning.

Tragic events can awaken communities and organisation to what really matters in life and inspire them to redefine their capacity through reorder their priorities and taking initiative in caring actions to benefit others. For example after the fire that destroyed Chicago in USA in 1871, forward-looking community leaders gathered the world's greatest city planners and architects to rebuild it, literally out of the ashes. That resilient response to tragedy made possible the transformation of the skyline and lakefront with innovative skyscrapers and vast public parks. That needed not only leadership and investment, but rather collaboration efforts to rebuild the socio-economic requirements of city that even more devastated by such major disaster.

Multi-systemic, resilience-oriented practices and approaches if implemented well can help communities to be proactively ready for any type of sudden change. For example, Chicago have established special community program to expand their vision of what is possible through collaboration, not only to survive trauma and loss, but also to regain their spirit to thrive.

Resilience Story

Stress and burnout related to the increasing pace and intensity of work are on the rise globally. A survey of over 100,000 employees across Asia, Europe, Africa, North America, and South America found that employee depression, stress and anxiety accounted for 82.6% of all emotional health cases in Employee Assistance Programs in 2014, up from 55.2% in 2012.

Economic Resilience and its Measurement.

The index developed covers four areas of economic resilience namely macroeconomic stability, microeconomic market efficiency, governance and social cohesion. Each of these areas contain variables which are considered suitable to gauge the extent to which the policy framework is conducive to absorb and counteract the effects of economic shocks.

The results of the measurement exercise can provide an explanation as to why inherently vulnerable countries may register high levels of GNP per capita. It is argued that countries may be economically successful because they are inherently not vulnerable (as thought for long time for the Oil Economy based countries in Arab World), or because they are resilient in the face of the vulnerability they face (as Japan, with improves as it goes through earthquakes or disasters). The obverse is also true, in that countries may be unsuccessful because they are not sufficiently resilient.

Studies further show that GDP per capita is positively related to economic resilience and negatively related to inherent economic vulnerability. Furthermore, per capita GDP is found to be more sensitive to resilience than to vulnerability. The index produced in this study is very preliminary, and the work should be considered as still at an early stage of development.

Farrugia (2004) elaborated further on these ideas by considering the economic strength of trading partners as a proxy for the probability of

shocks to exports. An analogy relating to an attack of influenza virus may help explain the three senses in which the term “resilience” has been used. A person exposed to the virus may (a) get infected but recovers quickly; (b) withstand the effect of the virus, possibly by being immunized; and (c) avoid the virus altogether by staying away from infection sources.

It is however to be stated that certain countries may have external debt not because of a weak policy framework but due to a highly-developed international financial activity. This is a recognised weakness in the use of this indicator. However the inclusion of other variables related to market efficiency and governance would to an extent “correct” this weakness, since these variables either exacerbate the effect of external debt in the presence of a weak policy framework or counteract it otherwise.

The high costs of crises underscore the need to strengthen the resilience of economies, notably by assessing early on potential vulnerabilities that can lead to such costly events.

Resilience Story

“Creative Destruction and the Sharing Economy” are concepts that was represented with a book that reflects the resilience economy certain practices. Sharing economy (i.e. doing and creating businesses from things that you don’t own) managed to raise attention of economics tools that lead to resilience for better market, welfare, equilibrium, profit and cost.

With sharing Economy we can create both resilient creative destruction and disruptive of innovation. Such resilience can be seen in what is called today as Uber Economy that started with Uber taxi system as a simple application. The resilience in the economics of Uber focus on the struggle between innovation and regulation that is trying to “Destroy Uber the destroyer”.

The Swiss chief economist, of SMEs Federation, Henrique Schneider, discusses technically how Uber economics resilience plays as a force for economic and socio-economic development. Schneider critique the non-resilient regulators whom envisage wellbeing, but in reality they are usually are short sighted for future development. Uber economy is similar to resilience economy in that is competitive and hard to expect since it is made based on interdisciplinary thinking. This interdisciplinary thinking is made in the case of Uber of law + philosophy + sociology + history, besides economics. Thus it is really an economy that is linked to different people, economy and society.

Similar to resilience, Uber Sharing Economy plays a role in influencing and developing our societies today since it changes our behaviour to accept sharing as a concept which illustrated on the importance of using and sharing extra access, re-defining the individual ideal inventory, or capacity vs. increasing the individual financial access and ownership. Uber economy have opened doors for the importance of resilience even in the societal population density, since it needs for services sustainability and the desire of the community to deal and build direct trust between the sellers and buyers without mediators.

Measures of Resilience Progress

We need to measure resilience progress and to promote people engagement with the concept. One of the main measures we seek to promote business uptake of new technologies from R&D to superfast broadband. Demonstrate a clear identification of weaknesses as well as strengths in the business base, particularly against which percent of plans that mentioned and offered strong appraisals, of each measure where a small number of sectors, businesses and assets are relied upon. Demonstrate ongoing engagement with businesses and their employees, of all sizes and sectors. Demonstrate an appropriate understanding of the recent recession's impact on the local economy across all sectors on all residents. Demonstrate a firm commitment to long-term investment in infrastructure, aligned with

environmental and economic priorities, rather than simply presenting a wish list. Demonstrate understanding of the interactions between the different organisations or authorities, and the national picture. Demonstrate an integration of economic policymaking across key areas: transport, housing, skills, R&D, planning, energy.

Measuring ER thus is of particular importance for substantiating strategic decisions related to diminishing losses triggered by economic crises and disasters because the resilience of supply chains of individual companies can contribute to the resilience of an entire region. Failing to include resilience in estimating, losses, leads to inflationist evaluation of business disruptions due to shocks or to losing opportunities.

Resilience Story

In order for the youth to have excellent personality and character, there is need to build strong foundation of values (Wallace and Chen, 2006). This is not, of course by parents alone but all educators who are at each and every level of one's education. Personality itself has three key determinant factors which are;

Heredity: Heredity refers to those factors that were determined at conception. Physical structure, facial attractiveness, gender, temperament, muscle composition and reflexes, energy level, and biological rhythms are characteristics that are generally considered to be either completely or substantially influenced by who your parents were, that is by their biological, physiological and inherent psychological makeup.

Environment: The environmental factors that exert pressures on our personality formation are the culture in which we are raised, our early conditioning, the norms among our family, friends and social groups, and other influences that we experience. The environment to which we are exposed plays a substantial role in shaping our personalities.

Situation: A third factor, the situation, influences the effects of heredity and environment on personality. An individual's personality although generally stable and consistent, does change in different situations. The varying demand of different situation calls forth different aspects of one's personality. We should not therefore look upon personality patterns in isolation.

From the factors above, it is noted that personality and character are key ingredients of behaviour. Behaviour is the way in which we conduct ourselves. The way in which we act. Our behaviour is influenced by our feelings, judgments, beliefs, motivations, needs, experience and opinions of others (Judge and Ilies, 2002). Patterns of behaviour develop through our reactions to events and actions over a period of time. Behaviour consists of four components:

Motivation: The drive to pursue one action over another. Being aware of our core drivers, those things that motivate you positively or negatively- can help you understand the roots of your behaviour and make adjustments as necessary to modify your behaviour.

Modes of thinking: the way you process the various inputs your brain receives. Being aware of how we take in and make sense of information can help us understand how we make judgments or decisions that lead to choosing one behaviour or course of action over another.

Modes of acting: the course of action we apply in a given situation. Being aware of how we express our reaction to the things that happen to and around us can help us understand the alternatives available to us when certain events arise.

Modes of interacting: the way in which we communicate and share ideas, opinions and feelings with others. Being aware of how we talk and work with others can help us understand how our preferred style fit with those with whom we work and live.

Social Capital Capacity Analyse & Resilience

OECD sees that Resilience means that states can better withstand economic, social, environmental, political shocks and stresses. Many country build more resilient through experiential learning over the years. For example, Bangladesh has become more resilient against floods as the government's ability to warn and evacuate people and control infectious diseases has improved. Other example of more resilient socio-economies are recent peaceful democratic transitions in countries as El Salvador, Malawi and Indonesia. Countries as Angola, Ghana, Mozambique and others have set up natural resource stabilization funds and are less vulnerable to oil price shocks therefore have built much better resilient economies.

Risk analysis of the social capital capacity for any organisation and/or country found to be very important for enhancing their resilience economy and thus reducing their vulnerabilities. For example if the country have country have many displaced families, it needs to have special resilience economy roadmap for protecting its people from shocks and stresses. This is the case for example for the eastern Democratic Republic of Congo.

Resilience risk analysis has been a key focus of the Organisation for Economic Co-operation and Development (OECD) since the financial crisis of 2008. The OECD stresses on the development of humanitarian communities. This concept was applied first on the 2011 ground-breaking of the United Kingdom's humanitarian programme, and later on its ability to respond to major food emergencies in the Horn of Africa, and then in the Sahel.

One of the challenges for applying risk management program on the social capital capacity is the cynical doubt of humanitarian and government decision about the added value of resilience. For example, some believe resilience as just a term to insert into proposals to help attract new funding. Resilience is seen as by many human relief agencies as 'better' food security and limited livelihoods planning, or just another way to look at disaster risk reduction.

In order to manage the risk of social capital capacity to meet any sudden shocks countries, communities and organisation should allow enough

time to do a field analyse of what is needed to boost the resilience for specific vulnerable groups, specific support systems, and specific resilience programmes, to mitigate the social capital risks of the people in face of every day socio-economic challenges. The results of this analysis are then used to design new programmes to boost socio-economic resilience programs.

Resilience Story

In December 1996, Terry Liew gave up a promising career as an accounting manager to pursue his dream of becoming Singapore's leading shiatsu therapy instructor. After working for about one year out of a friend's massage clinic, Liew decided to start his own operation, The Shiatsu School, in a different part of the city's main downtown shopping area.

This was a considerable challenge for the fledgling entrepreneur, one that required significant personal investment. In the year that followed, Liew had made a considerable effort at developing the business. His first resilience challenges came in December 1999, where Terry got eviction notice for vacating the premises within four months. This meant he had to scramble to find a new location that could accommodate the growing business, as well as appeal to his existing and future customer base. The decision was critical because of the important implications it had on the company's finances, market positioning and future growth prospects.

In March 2000, Terry Liew, Principal of The Shiatsu School (the School), decided to relocate his Singapore-based business from a traditional Chinese shophouse. The two-year extendable lease came into effect on April 15, 2000 and the business reopened on May 1, 2000. In the ensuing months, Liew was confronted with a variety of new challenges that tested his managerial mettle, all of which he was able to resolve with reasonable success. Consequently, the School experienced a significant increase in demand for both its shiatsu therapy and training-related services.

Despite the success achieved after the move, Liew remained resilient about the need to develop a broader range of services to support the business so that he could dedicate more time to his one true driving passion - teaching and training others about shiatsu.

This need for developing other revenue streams took on greater urgency after September 11, 2001, when a series of terrorist incidents involving commercial airplanes in the US sent shock waves around the world.

In the wake of these incidents, Liew was forced to cancel very important foundation training classes that had been scheduled for October and November 2001 because the international students upon whom he relied on decided to stay at home. By mid-December 2001, the situation had become dire, as the level of international travel remained depressed, with no major upsurge in sight over the next several months.

However today with the resilience economy strategies that Liew followed the Shiatsu Schools have variety of revenue streams that ensured its continued success in the crises that came after.

Resilient Economy Reaction Indicators

RE reaction can be measured by identifying vulnerabilities that render countries more likely to suffer from costly economic crises, including currency, banking, and sovereign debt crises rather than attempting to predict the exact timing of crises and the triggers that lead to a crisis.

OECD work on well-being highlights that new data sources (ranging from data on household wealth and its distribution, to job quality and subjective well-being) are instrumental to develop our understanding of progress in new ways. But in every well-being dimension there is still more to do to improve the quality and comparability of available data. The good news is that our ability to measure progress towards better lives is rapidly.

Confidence intervals around parameters that in principle are unknown and are therefore estimated based on a sample of observations, such as available in surveys. A better understanding of people's well-being is central to developing better policies for better lives. With resilience driven economy spreading we should witness more Well-being in multidimensional, with different covering aspects of life ranging from civic engagement to housing, from household income to work-life balance, and from skills to health status. A thorough assessment of whether life is getting better requires a wide range of metrics, captured on a human scale, and able to reflect the diverse experiences of people.

The latest evidence on well-being in 11 different dimensions of life suggests that OECD countries have diverse patterns of strengths and weaknesses. Predictably, countries ranking in the top third of the OECD in gross domestic product (GDP) per capita terms tend to do well overall, especially in relation to material well-being outcomes such as household income and earnings.

Countries today have non resilient weaknesses that need to be corrected once indicated such as job security, air quality, housing affordability, and work-life balance at any level of GDP per capita. While we have known for a long time that there is more to life than GDP, this report shows where even the richest OECD countries still have room to improve the well-being in case of crises.

Resilience economy and resilience engineering (RE's) work based on both compromise + critical thinking. Through RE's we can assess situations on the basis well-supported evidence - not on emotional reasoning. A checklist based on RE's can be developed based building curiosity based on the "WHY?" questioning. Why involves defining terms that must be clear and concrete. The resilience checklist should involve examining evidence as sharing different opinions, exploring the assumptions and biases of the mindset of those involved. The checklist is an education tool for those that do not accept things easily and those who really wish to overcome their own biases during creating a decision or even after. The checklist involves avoiding emotional reasoning with clear thinking that leads to help to tolerate uncertainty.

If we test people resilience readiness we should see also how they approve or disapprove statements as: “I like Bicycles better than Car”, vs. “Bicycles are better than Cars”. More advanced checklist would help to ask if case of conflict situation how did we reach such situation? How can we act based on such situation? How do we interact and differentiate ourselves by being more resilient?

Asking also about the physical state of the organism and how it has influenced the organism’s behaviour and mental processes would be also an important question in the checklist. The checklist should finally help us to study and critique all kinds of ideas that takes away from being resilient in our socio-economic decisions.

Indicators need to cover also potential vulnerabilities that can lead to costly crises. From literature review there are more than 70 indicators that can be monitored to detect vulnerabilities early on and assess country risks of suffering a crisis.

With the development of OECD resilience Indicators there are today also the BRIICS resilience indicators, i.e. Brazil, Russian Federation, India, Indonesia, China and South Africa, Colombia and Latvia. The indicators are grouped into five domestic areas: i) financial sector imbalances, ii) nonfinancial sector imbalances, iii) asset market imbalances, iv) public sector imbalances and v) external sector imbalances.

Experiences in reading the imbalances indicators shows that it should not be seen in isolation. Reaction to RE should not lead only to unwinding of the several imbalances. Therefore here the terms vulnerabilities and imbalances can be used interchangeably.

RE Case Study- Resilience of Cuban Healthcare System – Part 2

Cont. To Resilience Case in Cuban Healthcare System

5- Resilient Family Medicine Curriculum Program

As a result of the family medicine model, the medical and nursing curricula received their greatest overhaul yet, adjusting to emphasize the expectation that Cuban family physicians and nurses would be responsible for the health of their patients, not just the treatment of disease and injury. This new curriculum was designed to match graduates' professional competencies with the NHS's workforce needs and the population's health needs, incorporating skills to understand and act upon shifting population health profiles. Curricular changes included increased proportion of epidemiological and public health sciences (including social communication), emphasized service learning in the community, introduction of problem-based and other active learning methods, and introduction of clinical skills early in training with the basic medical sciences.

6- Learning from Cuban Resilient Healthcare System

Cuban Healthcare principles, policies, and procedures showed it can be very flexible with different socio-economic challenges responding appropriately to particular health circumstances extant in each geographic area served by community polyclinics and their family medicine teams. The required neighbourhood health diagnosis is the key to establishing localized work priorities for the family medicine team and nationwide consistency. Health promotion, disease prevention, diagnosis and treatment, and rehabilitation activities are very basic yet effective. The CARE process was adopted as a way to ensure that information from the patient's medical history, physical examination, home environment, and neighbourhood characteristics could be used to both monitor and affect the health of individuals and families. Residents are classified by

disease and risk factors: smokers, overweight, diabetic, hypertensive, etc. This is a tedious and time-consuming process accomplished family by family, but is essential to intervention plans to promote health by modifying risk factors and applying appropriate Western and integrative medicine therapies for identified health problems. Family physicians and nurses are required to make annual home visits to each family in their catchment area, and patients with chronic illnesses are seen a minimum of once every 3 months.

Family physicians regularly call upon other primary care specialists, based at their community polyclinic, to consult on specific cases, its physicians referring patients to hospital services when required. Family physician and nurse offices and polyclinics alike undergo evaluation to become accredited as teaching facilities. There are currently 488 polyclinics across the country, each serving a population between 20 000 and 60 000.

7-The Resilience Design in the Cuban Health Pyramid.

Supervision for family physician offices is centered in the polyclinics, each clinic supporting some 20 to 40 family physician and nurse teams. “Basic Work Groups” composed of a leader from the polyclinic, a nursing supervisor, an internist, a paediatrician, an obstetrician-gynaecologist, a psychologist, and in many cases a social worker have responsibility for a specified number of family doctor and nurse offices.

The first line of specialty service provision is the polyclinic. In addition to physician specialists, polyclinics offer more advanced laboratory testing, diagnostic procedures, dentistry, and rehabilitation services. Also included at the primary care level are services such as the 336 maternity homes for women with high-risk pregnancies and 234 senior day care facilities. The next service tier is provided by municipal hospitals. Above this level are the tertiary care specialty hospitals at the provincial level and 14 institutes, the latter carrying out research as well as clinical care in a specific field. All provinces have at least 1 general, 1 maternity, and 1 paediatric hospital, and most have more. In all, Cuba has 215 hospitals, the fewest (4) in Cienfuegos Province (with a population of 406 000). Havana, with a population of 2.2 million, has 45 hospitals.

8-Results of Resilience Economy Design of Cuban PrimaryCare

Cuba's NHS, founded on strong primary health care, has been effective in application of clinical preventive services. Few can match Cuba's record of 98% full immunization by the age of 2 years, vaccinating children against 13 illnesses; antenatal care for 95% of pregnant women by the end of their first trimester with rates of infant mortality less than 5 per 1000 births; and chronic disease control, including at least yearly blood pressure measurements for almost the entire population. More recently, Cuba, even though at much less efficient cost, was ranked near the top of those countries on course to meet the United Nation's Millennium Development Goals, which focus more on the social determinants of health. The organization "Save the Children" lists Cuba as one of the best place among in motherhood.

9- Drive for Continuous Resilience Improvement

Cuba has a fairly robust national health data collection and analysis capability, centered in its National Statistics Division, which gathers data from all levels of the health system, beginning with the family medicine offices. The program provides strategic analysis of epidemiological data from the national, provincial, and municipal level to elucidate disease patterns and predict disease behaviours to develop and prioritize intervention strategies. Its third area of activity is the evaluation of health outcomes to determine the success of interventions. "What can be done now, given our limited resources, to further improve health status?" a resilient question that drive Cuba healthcare policy makers for further changes. An example of a change instituted from the top down was the complete restructuring of the National Cancer Program in 2006–2007, mandating creation of a new National Cancer Unit with authority over all program implementation, from prevention through treatment, rehabilitation, and cancer medication development. This was prompted by a review indicating that many types of cancer morbidities and mortalities were showing significant increases. Cuba's highly educated population is ripe for more inter-sectoral

CHAPTER NINE

RESILIENCE THROUGH PROBLEM SOLVING

Resilience and Problem Solving

We define a problem is when we have a situation in which there is a goal, but it is not clear how to reach the goal, or we fail to reach it, or when we have a gradual or sudden challenge towards achievement of our goals. Therefore problems need to be well defined in order to be dealt with accepted and resiliently overcome. A well-defined problem is one with clear specifications of the start state (where you are), goal state (where you want to be) and the processes for reaching the goal state (how to get there). Resilience would be easier if we have a well-defined problem. However, usually we would have an ill-defined problem which is a problem lacking clear specification of the start state, goal state, or the processes for reaching the goal state.

Problems brings specific solutions (not necessarily sustainable). However, these solutions if it doesn't sustain or not holistic it turns to be sources of problems again. Problems are sources of opportunities that leads to selective curiosity (help in creating a change in the mindset). Selective curiosity mindset are found to be more resilient and ready for challenges. The more we create such curious cultures the more we create resilience economy as shown in Figure (9-1).

Figure (9-1) How the spirit of curiosity helped to build resilience economy.



Hence, we need to start interpreting the problem before we claim we are starting a resilient journey towards solving the problem, since problem solving involves series of processes, including analysing the problem, breaking it into component parts, and establishing goals.

There are specific methods of problem solving, however few would lead to resilient practices, including systematic searching, trial and error, difference reduction, means-end analysis, working backward and using analogical thinking. Solving problems in logical and planned ways rarely leads to sustained resilience.

Resilience in problem in solving start from the time we attempt to build problem statement. Open minded, non-biased noise free observation that turns the physically collected data into absorbed information help to discover the type of blind spots that would create the reflection towards resilience as shown in the Figure (9-2). Once problem statement is clearly identified pull thinking stratification and systemic exploration can help the organisation or the concerned community towards stages of codification and classification that would start combination of solutions and thus integrate opportunities. At this stage problem statement would come with an improvement in the process of how to see the opportunities and build up learning that leads to innovation and incubation of results.

Figure (9-2) Illustrate Importance of Resilience in Problem Statement



In relevance to this we appreciate Sternberg (2004) statement that problem-solving starts with recognizing the problem. Therefore, monitoring the situation to recognise the problem help us to define the problem with different definitions after analysing the context and identifying the different goals. Therefore the resilience appreciation in the problem information during complex conflicts would help to construct or identify a new strategy for solving the problem that might lead to development.

Resilience Story

Google is considered the lead world company that carries the resilience spirit truly inside the company culture. Part of one its unique resilience driven programs is the “Entrepreneurship and Innovation at Google, Inc.”

Google, Inc. made innovation an everyday process rather than using it as a strategy during times of crisis. While some companies worked on perfecting their product before its initial release, Google followed a unique ‘launch and iterate’ resilience process to innovation. Right from the time the company was founded, Google relied on its employees to augment its culture of innovation. Its resilience policies like the ‘70/20/10’ innovation model and ‘Innovation Time Off’ gave a lot of freedom to Google’s employees to work on their preferred projects. The resilience

economy model of Google made employees dedicate 70 percent of their working to core business tasks, 20 percent to projects related to the core business, and 10 percent to projects which were totally unrelated to their core business.

Google also made it easy for its employees to express themselves through several channels including TGIF, Googlegeist, and Google Moderator. To foster radical innovation, the company set up the Google X division, where the employees were pushed to come up with ‘moon shots’ — projects that created products and services that were 10 times better than the competition. Co-founders of Google, Larry Page and Sergey Brin, Executive Chairman, Eric Schmidt, and other members of the top management team took a personal interest in these projects.

By August 2013, Google, Inc., known more for its dominance in the area of internet search till then, began to overtake its major rivals in innovation. The firm started working on a lot of other projects and increased its spending on research and development, thus gaining an edge over its competitors. Some analysts predicted that Google had started outpacing Apple, Inc. (Apple) in design, an area traditionally dominated by Apple. Google achieved this feat by making innovation an everyday process rather than as a necessity during times of crisis.

According to the resilience mindset of Page (the co-founder of Google) it would be totally not exciting if we come to work we do our best in roughly the same thing. That’s according to Page is why most companies decay slowly over time. It’s natural for people to want to work on things they know aren’t going to fail. But incremental improvement is guaranteed to be obsolete over time. Especially in technology, where you know there’s going to be non-incremental change.

In addition to its mission, Google founder in 1999 wrote “10 things” in Google’s initial years and they made it a point to revisit these from time to time to see if they still held true.

Even when Google came up with new products in response to competition, it strove to offer benefits that had been unimaginable till then. For instance, when the Google launched Gmail, it offered users 100 times as much storage as they could get anywhere else. In August 2011, Google acquired Motorola Mobility LLC for US\$ 12.5 billion in order to make its own hardware for smartphones, tablets, and other devices. Google had been eyeing Motorola for a while for its vast patent portfolio and manufacturing expertise. Some technology companies like Apple made their own software and hardware which gave them full control over the devices made by them.

Google constantly strove to ensure that its growing size did not come in the way of its innovation driven culture or it being resilient. Google kept its commitment for innovation and risk at a constant level by following several policies like having a corporate mission that could guide them, constantly looking for new ideas everywhere, working for continuous innovation rather than instant perfection, proper usage of data, etc. Google tried its best to maintain the nimbleness of a startup.

Reducing the Social Problems Complexity

The social problem varies from place to place and from time to time and from circumstances to circumstances. When a problem occurs in society it reflects the type of attitudes and interests of that society and its members. However, society problems usually are complex and they can't be explained and diagnosed by one cause, but rather by several interrelated causes. Social problems is often linked to social values, public morals and social ethics as nucleus. With problems we can see the social and personal disorder as level of corruption, or the social disintegration within the society. Resilience comes here to build a pattern of behaviour that is susceptible to humanitarian intervention.

Social problems (regardless of the type of society in which they appear) reveal their anti-social attitudes and values. With practices of resilience economy we can establish fuzzy interpretation with which the behaviour help to establish better learning and social functioning of the social value. Also, with resilience we can manage the outbreaks of social change. The

modern data brings different cultural values that lead to problems not previously faced or experienced by society.

We need to continue to reduce the social problem complexity throughout any journey that we target to improve the quality of life while creating more resilience. In order to manage this complexity we need to understand the constructs of such problems.

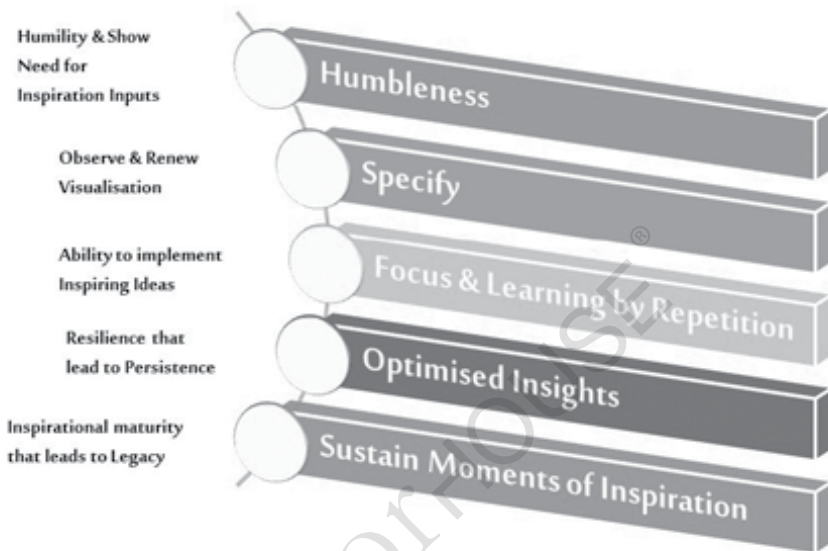
One of the main challenges faced in dealing with complexity is how to make the problem model more independent, thus building a spirit of realisation. The constraints of the problem need to be freed in order to raise the resilience capacity in overcoming its challenges and use it for better economic development.

The problem if tackled with multidisciplinary approach it would create an environment that allows us to make association with the model to be generalised and then reflect it on what is being questioned and observed specifically in relevance to our condition.

Resilience leads to persistence in solving complex problems through starting with humbleness, specifying, focused learning by repetition that optimise our insights and even might create moments of inspiration as shown in Figure (9-3).

Figure (9-3) Criteria of Establishing Resilience towards Complex Problem Solving

Inspiration Engineering Design Intention Journey



How the Inspired deals with Social Problems

There are many stories and case studies about the inspired and their resilience that is reflected by their legacy achievements. Muhammad Ali Clay is just one example and his resilience for both his ethical stand for opposing the participation in Vietnam War or his three times compact to get his champion title; didn't all come by coincidence. Ali being three-time world heavyweight boxing champion, named Sportsman of the Century. In 1984 he was diagnosed with Parkinson's disease in 1984.

However Ali's fame from his way and commitment to social problems, where he continued to live to bring different people together and effecting the movement of resilience economy through working on projects that developed the humanitarian causes and create more harmony in

communities. This type of resilience practices brings in more resilience that differentiates those whom create true waves of resilience from those who set a side talking on about it.

The British Red Cross (BRC) appreciated the importance role of social problems involvement when it defined resilience. BRC of seen resilience would grow an individual or society as the different abilities of anticipating, reducing the impact of, coping with, and recovering from the effects of adversity. Resilience is therefore not just the immediate ability to respond to negative 'events' but rather a process of positive adaptation before, during and after social problem occurs.

Mohamed Ali Clay similar to many of the inspired people around the world, throughout history, managed to use their high social life challenges or problems positivity in meeting resilience demands that led to their world class legacy. The challenges increased their resilience for life and developed their positive behaviour to the extent that made it a source for increasing capacity vs. life demands. This helped in creating unique contribution to society and socio-economy which helped in building a point of reference for resilient economies, as shown in Figure (9-4).

Figure (9-4) Model of Transformation of Life Challenges to Resilience Economy.



Financial Sector Problems and Resilience Economy

The financial markets and output volatility is ambiguous. Deep and well-functioning financial markets can make economic agents less vulnerable to sudden shocks by reducing borrowing constraints enabling them to smooth consumption and investment.

RE help the development of the financial markets through strengthening monetary policy transmission effectiveness to counter the frequency of shocks. Studies shows that by reducing capital adjustment costs, deeper financial markets may also speed up capital reallocation and reduce the persistence to shocks. This should increase the supply of credit, boosting investment and consumption and fuelling the upturn.

In resilience economy, the broad range of financial services options would help to diversify the business base, and would ensure that businesses aren't reliant on a single model of finance. Natural resources are also key considerations in regard to local economic resilience, not least in terms of energy production and consumption.

As the repeated global financial crisis has shown when financial sector becomes impaired, households and firms lose their ability to smooth shocks thus the need to have a resilient proactive financial accelerator mechanisms is highly needed. In the presence of such accelerator, the credit shocks can be mitigated thus the economic costs of crises would be relatively small.

Resilience Story

Customer participation is very important for resilience economy. Lande and Abramovci (2016) studied how the customer's role in the production process and how the concept of customer deviance is then used to examine the role normally prescribed for the customer and situations. Analysis of the strategies implemented by front office to resolve the problematic situations generated by the customer and examination of their performance. The behaviour of a "deviant" customer is used in training agent to be more resilient in receiving agents for their actual work and to improve customer support.

Public Sector Problems in Resilience Economy

Resilience in public sector is very profound to the sovereignty of any nation. When the public sector resilience capacity is perceived at risk, investors demand higher insurance or bonds interests on governments.

Government net debt, i.e. gross debt minus government assets, is one of the measures for public sector sustainability, because government assets could be sold to reduce debt in times of crisis. However, the liquidity of asset may differ and certain assets may be earmarked for specific purposes and are thus not available to be sold in times of crises.

A high government gross debt to GDP ratio is a robust predictor of the occurrence and severity of currency, banking and sovereign debt crises. The government interest rate and GDP growth is also a good predictor of fiscal stress episodes in countries' economies.

Resilience Story

Professor Ana Vovk one of the prominent Slovenian scholars who practiced resilience economy for years. Ana believes that Adapting to climate change is necessary, therefore in eastern Slovenia in the valley of Dravinja she established the condition for real learning for adaptation to climate change. In Dravinja valley Prof Ana built natural purification systems, constructed wetlands, established the learning paths and applied systems to protect the soil with eco-remediation and permaculture Learning polygons with research points for understanding ecosystems and ecosystem services.

Prof Ana along with her team set a white book and strategy on adaptation to climate change providing variety of approaches to adaptation, great emphasis is made on sustainable concept conditions in regions respectively countries. Ana believes that successful adaptation to climate change must first create social conditions, that connect environment and economy and the need for real change in the country respectively region. She created a learning garden called Dravinja valley to be a good example of adaptation mainly because it also has established the conditions for education on adaptation to climate change and sustainability has environmental, social and economic dimensions. The Dravinja Valley became a real learning region for adaptation to climate changes. The Poljčane municipality with its Nature Development Centre is one of the learning communities with an established infrastructure for education and research in the real environment. From 2009 to 2011, various activities in the specifically equipped areas of Dravinja valley were carried out, with the aim of creating the conditions for real education. In 2010 the Municipal Council of the Poljčane Municipality approved the investment program of the “Razvojni center narave” (Nature Development Centre). In this way, the area of the municipality became an official learning region for education about nature, ecoremediation and permaculture. The establishment of the learning region opened the opportunity to protect nature and to include in further development priority items for protecting nature and the environment, in order to be able to offer such an environment to the interested public in the form of educational, leisure, tourist, cultural,

environmental, economic and public agricultural programs. The Dravinja valley has become an example of good practice, demonstrating that nature and protection of the natural environment provide the opportunity for economic and social development.

New Resilience Insights & Social Problems Learning

Problem Based Learning be it for individuals, organisations or communities is believed to help to build more resilient economy societies.

In order to establish new resilience insights to social problems we need to understand the social construction and social culture. This means we need to understand the deviant behaviour and social disorder that comes as part of organisational social problems.

Unusual social movement often come into being indirectly and expands with the same degree of change that takes the direction of conflict with institutional patterns of normal social behaviour. Understanding of social disorders requires study and understanding of social organisations because theoretically they are inseparable. Studies shows that every social structure includes social problems and reflect the type and size and degree of development.

Social behaviour is usually subject to deviations or risks or defamation or exposure or criticism because of the sensitivity of their roles. The interdependence of the sections or patterns of social construction generates problems resulting from it. Problems of a particular pattern create new problems for another format, such as problems of in relevance to socio-political structure, which create problems for the economic context.

Many social problems starts with illiteracy about specific socio-economic issues that leads to these problem. Most people know this and condemn it. One of the major social problems is the rise of crimes in certain societies. Crimes of all kinds are part of the social problems that exist in all societies to varying degrees. In some societies as in South America and many African countries, it is a serious problem. Other problems related to crime

is drugs. All these problems and many other problems are visible and clear, but there are kinds of social problems hidden and unclear problems.

Social problems comes also with modernization. For example, there is a problem of large number of people killed by car accidents on the roads each year around many countries of the world. With millions of vehicles that roam the roads, the hundreds of accidents that occur, the number of victims who go as a result, and the thousands of injured people who live the rest of their lives or become physically disabled because of these incidents. Despite all these familiar examples there are no serious resilience engineering to accept and deal with the problem as a serious social problem.

Such issues need to be dealt with as projects for social change that would support the transformation to new schools that explains and discover the social reality and the new directions that need to be taken.

Resilience Story

Nicola Slawson established Living Goods, a company giving away its successful 'Avon Lady'-style business model in a bid to bolster healthcare in developing countries. Living Goods work in Uganda and Kenya, operating networks of mostly women who make a living by selling high-impact health products door-to-door. Essentially we've borrowed Avon's direct selling business model and made it work for products that are actually really important and in communities that are really poor.

Living Goods tackle a couple of the big problems with medicines in the area: affordability and quality. Normally, between the manufacturer of a drug and the village, there's a chain of about 10 distributors and each of those have to add on their own margin, so by the time it reaches the village, it can cost more than it should. There's also a lot of scope for people to mix counterfeits into the supply chain. We have a really short supply chain that we control. We can make sure it's not counterfeit and we're very competitive on price.

Living Goods focus on solutions for mothers and children for illnesses such as malaria, pneumonia and diarrhoea, as well as everything needed for a healthy newborn. They also sell preventative products such as mosquito nets and fortified foods, as well as a small number of consumer goods such as soaps, nappies and reusable sanitary pads. And they also sell technologies. Particularly in Kenya, we do really big business in solar lights, cleaner cook stoves and water filters.

Living Goods choose a community that's got a high need for these kinds of products and speak to the local leaders who recommend people to us. We try to pick the very best, with a good mixture of commitment to service and ability to run a small business. We train them up over a couple of weeks, focusing on everything they need to know about community health and on how to run a business. Then they head out to their communities with a 'Business in a Bag' and \$60 (£36)-worth of products, which they then pay back over a year. This is where the microfinance comes in. For more details on this story please visit:<https://www.positive.news/category/economics/good-business/>

Resilience and the Social Structure

Dealing with social problems in structure way can create economic resilience that prompt social thinkers to develop their theories and concepts. The depth and challenges of social problems views society as a holistic structure consisting of a set of interconnected parts, each part having a function to sustain the continuity of society, all of which cooperate with each other to meet basic needs. Through this, society tends to balance and stability while trying to solve a social challenge.

The structural units of the society consist of standards, roles, systems, values, groups and social institutions. All these units perform their functions in the face of the needs of society to achieve balance. The social act is shaped in the light of norms, roles and systems, so that this act appears to have a relatively stable character.

The construction of social structure consists of a set of repeated and interrelated behavioural phenomena that influences the social pattern. A society consisting of a set of interrelated and functionally supported systems.

Structural functional assumptions focus on the impact of social behaviour on the social level. While we need to focus on the frequent behavioural pattern. Attempt for structural stable balance being in certain amount of response to meet social demands. Then the organisation can build dynamic balance which refers to a response that corresponds to the change in pattern to rebalance it.

The social problem occurs when any change occurs in one part of the format because it will cause changes in other parts of the format.

Resilience Story

Sheffield City Region devotes strong sections of their plans to decentralisation. Sheffield devolved model for delivery identifies the need for appropriate powers to respond to economic shocks. It recognises that programme development and prioritisation will ideally take place at a local level, where strong local plans are complemented by the added strategic value, scale of ambition and business knowledge offers.

Sociological Analysis of Social Disintegration

Social disintegration occurs when there is a change in the balance of forces that support the organization at a certain stage and at the same time lead to the effectiveness of multiple social control forces.

Without resilience once the conditions for social change increase and the society becomes dynamic, disintegration of formal relationships occurs which leads to stringent behavioural patterns. Sometimes social disintegration occurs when the social structure changes the defined roles. The resilience in this social change leads to rearrangement of the social constructs and the creation of new values and new goals.

With resilience in social and cultural change we can today protect and even develop the role of each of the family members. I.e. maintaining the economic role of the mother and her socio-economic status in the family.

Resilience Story

Sustainability expert Greta Rossi is helping people to learn from nature and neuroscience in order to do better business. Greta mission is simple: offer individuals and organisations a knowledge ecosystem that empowers them to 'see the world anew' and which supports their creation of social and environmental value. We have a number of academics and professionals that help our clients understand their full impact on people and planet and then support their transformation in becoming truly sustainable. We call this process sustainability+.

Biomimicry is part of the approach we use. Biomimicry explores how nature works and how we can take advantage of nature's lessons to solve our problems. For example, we adopted the lesson from nature that an ecosystem thrives when we're diverse and collaborative when building our own knowledge ecosystem. We're also using concepts from neuroscience. We look at how complex new pathways can be connected and traced.

For more details on this story please visit:

<https://www.positive.news/category/economics/good-business/>

Conflict of Values & RE

Values are derived from the social conditions that the individual or the organisation interprets, governs and determines. Through values areas of resilience thinking and behaviour affects our learning. Values vary according to different communities and groups, and may be positive such as honesty and responsibility, or negative such as lying and fraud. The more resilient is the society that we'll find that values are shared by almost all society members. These values vary from group to community.

Modern societies are characterized by diversity and heterogeneity due to capacity to balance between multiple combinations of values in a single society for long time.

When conflict over values in society occurs, social problems rises. Conflict of values occurs when their is disparity between members of the society in terms of power and authority. Resilience economy practices reduce the sense of oppression and injustice. This lead mitigate the risk of conflict between social classes in the community. Resilience economy bring focused efforts to solve social problems by concentrating on the affected group to extract the rights from the occupying centres of power. This reduces the defence of the group for its interests. Resilience build gradual hidden consensus between each group.

In resilience economy managing social conflicts have a great economical value. Conflict of youth with old people have an direct economical and indirect socio-economical value. Same would apply values conflict between owners against tenants. Students against teachers. The most important thing to be aware of is that the struggle for values is one of the most serious conflicts and that it is not easy for people to reach simple solutions, because each group believes that it is right in terms of its values and, on the other hand, to compromise their values easily and easily. Another example of conflict is the conflict between social classes where classes struggle over wealth and power.

Resilience Story

Although Mahatma Gandhi's goal is to keep India united, sectarian wars between the Hindu majority (about 82 percent of the total population) and the Muslim minority (about 13 percent of the population) erupted following the departure of British troops from India in 1947, Which led to the partition of India. Mahatma Gandhi tried to stop this bloody sectarian war by all peaceful means and the most important through fasting and abstaining from Taan for long days. One day while he was lying on a stretcher with a lot of stress and long-term fasting, an angry Hindu man came over to him and threw him food and yelled. All! All!,

I will enter hell but not because of you but to kill an innocent Muslim child! Mahatma Gandhi asked: Why did you do that? The man became more angry and desperate. He said: Muslims have killed my son and only. Mahatma Gandhi replied: "There is one way to get you out of the hell you live in now." The man asked him: How? What is this way? "Mahatma Gandhi said," Look for a child who killed his parents in this war and gave him exactly as a child. "He was sure that this child was a Muslim son! And as a must have raised a valid education and learn Islam just as if his parents were alive! This is what coexistence means, and it is made of such leaders and individuals as a symbol whose words are transmitted to generations.

Resilience Economy & Entrepreneurs

Entrepreneurs needs to be highly resilient and be able to use the concept of resilience economy if they are to stay in business. Resilience in the entrepreneurship journey starts with the selective mindset that would capture opportunities from observations and market study.

Resilience in observation helps to selectively chose the good timing, the suitable technology, the point of market opening. Even this was a failure attempt entrepreneur would build another resilience attempt by the willing to start all over again with more perseverance and persistence that gives more clear direction in the 2nd time. Part of resilience is that the entrepreneur would keep a mentor to discuss with him his progress and failures.

Entrepreneurs need always to rebuild their model even while inventing the business model. Resilience is always needed for any entrepreneur that plans to transform the business in response to continuous market shifts. For example, we need to be resilient to ground-breaking technologies, or disruptive start-ups. Resilient entrepreneurs would take actions quickly and aggressively, by turning the firm into something entirely new.

As we know it can take years for an entrepreneurial innovative initiative to become large enough to replace the revenue an incumbent has lost due

to disruption. Sudden disruption need high resilience economy practices as companies in many occasions need to completely abandons its old model and even throws away any advantage it used to has. However, resilient entrepreneurs has a chance more than others as they would most commonly experience disruption as a drop in revenue earlier than others.

Resilient entrepreneurs as Virgin's leader Usually follow two practical approaches in order to sustain their influence on the society. First, they would not hesitate to do the major transformations needed of for repositioning the core business, adapting its current business model that would alter the marketplace and create a disruptive business to develop the innovations that will become the source of future growth. Then these entrepreneurs would establish a new organizational process we call the "capabilities exchange" which gives the innovative new operation the time and knowledge it needs to grow and develop.

IBM and Apple both took this dual-transformation resilient approach. In the mid-1990s, IBM reconceived its mainframe business, shifting from proprietary systems to servers running software based on open standards. At the same time, it built a separate Global Services organization that became the source of its future growth. In the late 1990s, Apple repositioned its struggling PC business, trimming offerings and focusing on design. Shortly afterward, it launched the iPod and opened the iTunes store, which led to phenomenal growth.

More recently, we've seen the dual-track process unfolding at Barnes & Noble as the retailer reacted to the severe disruption of e-books, and at Xerox in response to the slow erosion of its core copier business. Both cases of Xerox and B&N shows how the resilience transformation process works.

Resilience Story

The West of England (WoE) LEP presents a strong analysis of the strengths and weaknesses of business base across interventions and plans that enabling people and communities to benefit from a reduced inequality gap, and presents a strong understanding of the causes of

long-term unemployment and deprivation. The honest appraisal of the 'deprivation hotspots' and consideration of how inequalities can be reduced. 'Endemic social exclusion and poverty has a substantial effect on communities and their wellbeing and has a disproportionate call on resources. Diminishing numbers of low-skill jobs and the competition for these jobs increases difficulties for those trying to access to the labour market. Low-skilled jobs still exist in substantial numbers, albeit offering low pay and generally poor conditions.

The real issue is not that there are no jobs for low-skilled people, but that many low-skilled people, especially those with no qualifications, are unable to compete successfully for those jobs, which are taken by others who are better qualified or have greater skills. WoE sets out a plan for 'actively engaging civil society organisations in seeking ways to tackle social inclusion and combat poverty in an integrated, well managed and consistent way' so that 'all our communities share in the prosperity, health and well-being of the area and reduce the inequality gap. WoE LEP's plan focuses on carers and those with long-term health issues, digital exclusion, ex-services personnel, ex-offenders, and access to flexible and affordable childcare. WoE also has a strong understanding of its strategic fit at the national and global level. It recognises that 'a city region with a strong profile makes a significant contribution to the UK's global competitiveness,' and sets out how it is 'aligned with national policy'.

Behavioural Economics and Resilience

Behavioural economics has been on the rise in the last few years specially with the work of the two Nobel Prize winners Daniel Kahneman (awarded 2002) and Richard Thaler (awarded 2017). Through synthesis of literature that were published in the 20 years behavioral economics open for us opportunities for more resilience driven economy, since it is proven that we can manipulate how people look at rational or irrational decisions and choices to good or bad deeds, or even create differentiation.

From the work of both Kahneman (2011) followed by Thaler and Sunstein (2008) we can even see how much we can create more resilient mindset in how people behave with daily practices as respecting others rights and improving how they behave in relevance to their socio-economic relations and practices.

Prof Thaler's work shows that our "logical" thinking pushes us to towards traditional economic theory. Kahneman and Thaler sees that given two options, we are likely to pick the wrong one even if that means making ourselves less well off. This is due to fast thinking that even increase with speed of life that created lack of thinking time and habits of poor decisions due failure of factual analysis mindset. Therefore, these scientists and others seen that ingeniously simple interventions can help us as humans be more respectful to each other; even at the level of keeping toilets clean after using it thus saving lots of cleaning money and avoiding unnecessary discomfort to other. When Thaler and Sunstein Nudge technique was introduced at Schiphol airport in Amsterdam in 1999, by just adding an etch image of a fly in the urinal spot, savings on clean-up in men toilet was enormous and it enhanced the satisfaction of the users.

Behavioural economics therefore carries lots of potentials for future of resilience based economy and the British UK government cabinet led by David Cameron in (2010) was one of the earliest to establish the "Nudge Unit" or what's called later "Behavioural Insights Team". This development shows a promise that resilience can be encouraged with well design behavioural influence initiatives. For example, Cameron government made a communication plan that enhanced the tax payers acknowledge of how many have paid their tax in a range of ways in order to pull the mindset to say (so you should do your tax due now). A more positive approach also followed with the wealthy people where they received reminders on how paying their taxes would help improve local services. This boosted the treasury with payments of overdue tax by £210 million.

Behavioural resilience driven economy can be learned from sales people who manipulate people decisions by simply emphasising certain "social norming" key points to our mindset, such as saying "most people in your

position has bought this product/service” or “this offer is only available for this month”. This behavioural manipulation technique can be applied also in resilience economy where we would come to a stage where we would hate the idea of missing out things that we could do for good, instead of neglecting the good deed. With such behavioural pull thinking practices we relentlessly think with positivity that would make us more biased to be more resilient and even exercise better self-control.

Today with more behavioural economics tools we can pull people mindset to choose what is wisest instead of what easiest by bring in more easy access to what is wisest or being more trigger for resilience. I.e. showing more case studies on resilience stories that brought success.

With behavioural economics we have more people who want to donate their vital organs in the event of their death. This is due to a Nudge technique that resembles also resilience engineering practices where people would be asked to “opt out” if they object so, i.e. using reverse thinking techniques. These techniques helps us to “do the right thing” and avoid the biases towards our consciences. This coincides with our differential diagnosis technique that focus on heuristics practices that would break the shield through concepts of inspiration engineering.

RE Case Study- Building Resilience through Humanitarian NGO Services

One of the Humanitarian Non-Government Organisation (NGOs) working in Bosnia which we shall call BHA was working to minimise the impact of poverty. In order to improve its resilience economy practices the project team studied the extent of the implementation of Bosnia’s poverty reduction strategy to see if poverty really is reducing and if the ‘Bosnian Humanitarian Agency’ (BHA) is working effectively towards that.

The key business factors of BHA was reviewed to optimise the beneficiaries of BHA services based on need and priority”. BHA’s vision and mission were analysed in relevance to its main current services, i.e. provision cooked meals for more than 300 people a day and non-

cooked food for 80 families a week, besides the financial support and clothes (where possible). BHA has a long waiting list, yet 50% of BHA beneficiaries are young people. Most of humanitarian cases in BHA stay forever, i.e. until they die.

The project targeted to help BHA to have faster services without long waiting lists. Prepare BHA to be more ready for any crises and more provision of relief as a humanitarian agency.

The project applied many resilience economy practices in BHA as providing services according to real needs by building partnerships with NGOs to accomplish more effectively focused services. Transform BHA to become a source for eliminating need among those on the list through a 'Poverty Elimination Programme' to be led by BHA's young workers.

Set up a BHA youth team that has a specific target to eliminate poverty among BHA beneficiaries. Set new social assessment standards for those inside the BHA. Remove from the BHA waiting list those applicants that of lower priority for support.

The project also made a model for educating and passing on expertise from those who can cook if dry food is delivered, while opening a special scheme or programme for the homeless to be led by youth teams. This helped to improve the response speed for those who apply for help and improve the checking of updates. BHA's young workers and student volunteer social workers should restudy the cases every month.

The third stage was focused on setting up plans to reduce the number of young people who receive meals from the BHA service by 20% every year and increase the number of those on the waiting list with higher priority or those who could receive entrepreneurial mentorship support services. BHA started to discuss in a monthly meeting with youth volunteers, suggestions for developing ways of applying, updating and accepting cases. BHA cases observation forms was improved specially for those who receive more than one service.

A weightage matrix to measure the need and priority of cases by evaluating criteria such as; gender, marital status, age, ability & functionality, diseases, government support, support from other NGOs, family support, homelessness, financial situation, duration of support from BHA, number of children/dependents, receiving more than one service from BHA, transport, and other (to be specified). Reviewing “green” cases to reduce their number. Re-examine cases on the waiting list and admit them in order of priority. Review cases which receive two services. Revisit the reasons for providing cooked food.

A review for the amount to consider for a person/month to be independent: For a single person = US \$35 and for a family of 4 = US \$150. This raised the issue of collaboration needs with the government and other NGOs. More deeper verification was followed for each case to check e.g. employment, household, people who are affected by war.

Partnership was specified to see the type of organisations that BHA can work on while streamlining its processes. BHA managed to apply a matrix to move from ‘estimation to forecasting’ i.e. in order to measure cases of real need and distinguish these from those who should be outside the list. Applying categorisation: From 60 - 75 = red, 59 - 45 = yellow, 44 - 30 = green, 29 and below = should not receive help (or should receive temporary assistance). A more focused partnership programme based on a win-win scenario with social services’ university students and faculty to provide and manage social studies for BHA cases, as well as providing youth volunteers. The target to move more cases in BHA from being dependent on BHA to be independent from BHA.

The project in BHA helped to make it more healthy and profitable by starting a bakery. This would be an efficient cost centre for supplying fresh daily bread with the meals since bread makes up 30% of the meal. The bakery should be a profit centre, as would spaces which could be rented out as lecture rooms. BHA started building trusts funds, including the bakery and the halls, as profit centres. BHA’s strategic team now focus on improving the livelihoods of its beneficiaries by

assessing them in terms of their socio-economic conditions: i.e. through focusing on 5 assets (+4 competencies): human capital, natural capital (land, property, etc.), physical capital, financial capital and social capital.

These resilience economy practices helped to develop more sustainable funding for BHA in terms of finding donors and sponsors, as well as quantifying marketing: i.e. cost to feed a family per day, or per year, cost for bakery... etc.

authorHOUSE®

CHAPTER TEN

SUSTAINING RESILIENCE ECONOMY

Our Steps to Realise Resilience Economy

In order to realise resilience economy practices in our life journey we need to make it more affordable as a concept that can be reached and spread to the public within next 10 years. The affordability of the resilience economy is therefore controlled by strike of both “want to reach” and “afford to reach” of resilience economy. Stages of the want to reach need to interact through specific practices with can afford to reach as per Figure (10-1).

Figure (10-1) Illustrate Steps for Realise RE



Resilience is that ineffable quality that allows some people to be knocked down by life and come back stronger than ever. Rather than letting failure overcome them and drain their resolve, they find a way to rise from the ashes. Psychologists have identified some of the factors that make someone resilient, among them a positive attitude, optimism, the ability to regulate emotions, and the ability to see failure as a form of helpful feedback. Even after misfortune, resilient people are blessed with such an outlook that they are able to change course and soldier on.

As we move through each decade and navigate changes and challenges in our career and personal life, we begin to identify our supposed missteps – big and small. We begin to understand how our own doubts, insecurities, self-limitations or expectations may have been getting in the way all along, and take such insight into the decades ahead of us. Without such experience, it can be difficult to gain such clarity around what we might be doing wrong or what might be holding us back in our work, side projects, relationships or health. But sometimes the experiences of others can help speed us along.

Alibaba resemble history of Chinese management practices which has its own history and success stories which is totally different than Western management models. Chinese business practice are receiving more global attention as the Chinese economy rises and proves resilient to many international financial problems. The concept of Balance in Chinese business are rarely understood by the rest of the world.

There many studies which tried to assess lately what factors make an entity resilient? Therefore there is a need more than ever today to start setting the resilience index. One major conclusion is that many of the components of resilience indices to date are not in fact important to the resilience of individual businesses or the economy as a whole during the early stages of the recovery process. Many of these indicators are borrowed from vulnerability studies.

Resilience is generally thought of as a “positive adaptation” after a stressful or adverse situation. Thus we see many resilience focused research today

focus on studying those who engage in life with hope and humour despite devastating losses. It is important to note that resilience is not only about overcoming a deeply stressful situation, but also coming out of the said situation with “competent functioning”. This balancing allows a person to rebound from adversity as a strengthened and more resourceful person.

Professor Jing Huang (2014), a senior fellow at the Brookings Institution, explained the art of balancing power by discussing the difference between Western and Chinese management practices and exploring how successful management practices can be learned from both models. Chinese management value the teaching of wisdom and art and thus get a good balance between the two. In other words, it means keeping a dynamic balance so as to ensure the compatibility of Yin and Yang and the coexistence of two extremes, reaching the final goal of all living creatures growing together without doing harm to one another, roads running parallel without interfering with each other.

Many people don't appreciate the importance of balancing unless we explain the practices of resilient people. As it is a common misconception that resilient people are free from negative emotions or thoughts, and remain optimistic in most or all situations. To the contrary, resilient individuals have, through time, developed proper coping techniques that allow them to effectively and relatively easily navigate around or through crises. In other words, people who demonstrate resilience are people with optimistic attitude and positive emotionality and are, by practice, able to effectively balance negative emotions with positive ones.

Resilience Story

The Nepali earthquake in April 2015 completely destroyed the remote village of Laprak. Every building was leveled, 19 people were killed, and the village, located nine hours away from the closest road, was completely cut off from any kind of medical services or basic supplies. Enter Mike Karch, a volunteer doctor working with the International Medical Corps' Emergency Response Team. The response team was helicoptered into the village to provide lifesaving medical care and supplies. Getting people

aid was made even more difficult, however, by massive landslides caused by the earthquake's aftershocks. Eventually, a mobile medical unit was established 10,000 feet from the landslides and displaced people from nearby villages who began pouring in.

Resilience Economy in Digital Age

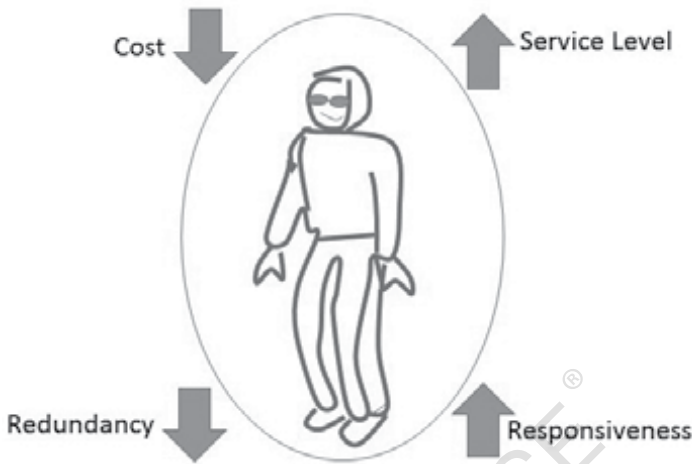
Today, with rapidly evolving and distributed information networks and development of technology that comes with increased mobility and distributed information networks; lots of researchers and scientists are exploring how to use this advancement in creating new social capabilities and resources that governments, citizens, civil society organisations and businesses can use to enhance their resilience capacity.

Businesses, universities and think tanks, social sector and government organisations are considered to be important for building RE connection and collaboration in a digital age. Resilience more than ever needed today in many practices as we are having a wide variety of contents and data streams that would safely optimise the connectivity and the consumerisation of the different technologies.

Therefore we need to have resilient mindset during the process of manipulating and processing of the information and even making decisions upon it.

As we approach the robotics age, resilience engineers should play a great role in exploring the adaptation of the designs that would create robust robots that are resilient, yet flexible, and agile with lean performance, i.e. have the best quality of performance in relevance to the best cost and delivery. Flexible resilient design for robotics would compete in delivering the best robotics service utilisation with most agile responsiveness while maintaining the lowest cost and lowest redundancy, as shown in Figure (10-2).

Figure (10-2) Illustrates Resilience mechanisms in Robotics Designs.



The core of RE in even in a technology era is learning and change both of which increase our capacity to adapt and grow in the face of uncertainty and risk. The capacity to connect and collaborate form a resilient network that increase our collective ability to imagine, invent, and then make things that add value and to our life. evolving in its capabilities and instinct for learning and adaptability.

Both resilience in technology and social approaches help to generate novel engagements towards more focused productivity and innovation since both depends on networks that connect people, ideas, assets, and knowledge to strengthen and streamline services.

Resilient technology help to sharpen insight and foresight and engage ecosystems of stakeholders to improve judgment and decision making. Applying such technology should be designed for example, for a school or a hospital to help find resilient solutions that suit particular circumstances and needs. The point is to fuel difference and therefore adaptability thus create value solutions that emerge to create a better learning or to manage a person's healthcare more effectively—is significant to individuals, families, or a community, regardless of the network. But the differentiated, highly local results invariably are a consequence of the larger system of

services and resources from which these people and communities seek help, and which has to be designed and provisioned. And what people learn as they seek solutions that suit their needs and circumstances can then be fed back into the larger system or network to lift learning and knowledge from which others can benefit. In addition, issues of scale, authority, and control have to be confronted across larger systems of public service. Joining those “small pieces” in more coherent networks is another feature of “connecting for resilience.” The persistent challenge is how governments enable all of this distributed, entrepreneurial activity and make this sprawling world of necessarily distributed and agile action both coherent and “sensible.” There are three ways that governments should prepare to take advantage of these transitions to enhance resilience, both within and outside the public sector.

Resilience economy would shape like water if we carefully use the era of internet of things where people and organisations would become more mobile and geographically abstracted. Our knowledge of the material world is becoming more temporally and spatially explicit.

The rapidly growing flow of data generated by the “Internet of Things”—the increasingly pervasive network of sensors embedded in physical objects or places—creates a new relationship between connectedness and resilience. Resilience design of the sensors that ensure the careful gathering, communicating, and storing information without hacking our privacy.

This fusion of human insight with internet of things design would enhance the situational awareness and build scenarios and forecasting capabilities.

Having resilience built in the designs in the internet of things would reinforce the social bonds between the family member and the also the community. Thus giving meaning to our life commitment and caring. To neglect the resilience design in this major age transformation of internet would make social bonds at risk of survival of a whole culture that would tend to loss its resilience over time.

Resilience Story

The Internet and a raft of new communication tools and collaboration platforms have enabled new connections between people and information, and between people and communities. In a relatively short time, we have evolved some of the most powerful tools for finding, collating, and analyzing information about pretty much anything, anywhere, anytime. Our ability to “pull” data and knowledge, when and where we need it, contrasts starkly with industrial models of knowledge gathering, in which producers “pushed” information in a form and time frame that suited them.

Mastering the art and practice of this “human network” demands a combination of bold vision, steady investment in new skills and capabilities, and patient, competent provisioning of the underlying platforms and infrastructure. The emergence of the connected world—a distributed network of “small pieces, loosely joined”—offers the possibility of transforming the public sector, changing the role of government, and enabling citizens to be more actively involved in shaping services and public sector decision making.

Psychology of Resilience Sustenance

Since the early 1980s psychologists began to examine other factors associated with the absence of psychopathology, to incorporate cultural context, social relationships, changes over the lifespan and, around the millennium, neurobiological processes (Masten and Wright, 2010).

Psychologists argued that alongside personality attributes, protective factors are rooted in culture, community and social relationships (Masten and Wright, 2010).

Researchers sought to conduct cross-cultural studies, use qualitative methods and integrate marginalised communities to attend to cultural expressions of resilience and identify community-specific strengths (Claus-Ehlers, 2008).

Resilience is a developmental process, unfolding over time and circumstances. Resilience is developmental, both in the sense that childhood and adolescence are critical periods to lay foundations for functioning in adulthood and that individuals change and grow throughout life.

Overwhelming challenges may develop strengths that surface many years down the line. Resilience is not an outcome, but a process, although 'resilient outcomes' may denote achievements thought to be remarkable given an individual's circumstances. Resilience is not a box to tick; it is an ongoing process of meaning-making and growth in which the only reliable constant is the mutually dependent capacity of the individual and their environment for change.

Psychological resilience that leads to sustenance is gaining lately even an increasing attention from funders, policymakers, publications and professional societies. This section outlines emerging trends in research and practice identified through disciplinary attention, funders' calls for proposals, legislation, publication impact factors and citation rates. Resilience involves a complex interaction of multiple mechanisms ranging from the individual-level to the structural. Certain dispositional aspects of a person undoubtedly help them face seemingly insurmountable challenges and cope with daily stressors that gradually erode well-being with imperceptible slowness.

As discussed in earlier chapters positive psychology is the science of optimal human functioning. It is very closed to inspiration economy which focus on creating inspiration and get better outcome out of them. It focuses on what works by studying success and strengths, rather than weakness and failure.

People are frightened of negative emotions thus they try to suppress their emotions. Paradoxically, research shows this causes more of the negative emotions that they didn't want. Bad feelings such as guilt, shame and frustration are only negative. However, research shows that bad feelings can galvanise us to do things differently: we need them to succeed.

Resilience Story

Tata is a huge company that helped India Economy to reach what it is today. One of the Tata many subsidiaries is Tata Consultancy Services. Today Tata consultancy is available in many countries including China which became as part of long resilience strategy the largest delivery centre after India.

Functioning as its offshore IT outsourcing hub for the Asia Pacific region, China's growing domestic software market presented attractive opportunities for IT services. Tata resilience lead it to shift its focus to China's financial sector, as many of China's domestic banks were then undergoing a period of major organisational transformation. Given this, in 2007, the company set a target to increase its China-based manpower strength from 800 to 6,000 by 2011.

Tata other resilience resembled in its product/service innovation which was an essential catalyst to sustain its growth momentum and to maintain a competitive edge in the Chinese market.

Sustaining Social Resilience

Social resilience is highly needed when there are lack of agreement between people on what is considered a social problem. The differences in personal convictions in relevance to a social problem, as dealing with the degree of poverty or unemployment, is what should trigger the need for social resilience, especially if this problem is more noticed in specific category or sect of the community. For example, you'll find that in many non-democratic countries in Middle East and Africa that unemployment is more clearly noticed in the non-ruling group or those that are away from both political and economic powers.

Social resilience is highly needed today since it can help to return people to normal practices stage and also it would help to admit and recognize the state of human misery. Once there are real social resilience we'll find

that those in certain type of power as the rich people would try to absorb the misery of the poor or the pain of poverty during all times.

Social resilience is also highly needed when there are ethnic problems, it can be seen more today in the racial problem in USA between it blacks and white citizens.

Resilience Economy therefore considers social problems as natural and unavoidable, where there are certain conditions that produce, subtract or produce a product/service that can be avoided with resilience techniques. Resilient economy help us avoid or prevent bi-products of natural or unavoidable disasters.

Resilience economy identify the abnormal and unusual situations and then consider the solutions to these situations. Then the RE experts build a socio-economic mitigation plan to avoid the breakdown of the social and the economic system or prevent its high deviation from the normal situations. With resilience economy we can deal with prevailing social behaviours and can maintain, or even develop the society laws to meet the going on or upcoming challenges. With the presence of resilience absorption techniques the problem artificially visualised with amplification to see how the situation works.

Resilience Story

Singapore proven its resilience economic practices over the last 50 years now. One of the amazing success stories of Singapore is their ability to go into being the largest water systems manufacturing despite Singapore shortage of natural water resources since its independence from Malaysia. In the last 20 years Singapore have been dominating for example the Water Osmosis Membrane Manufacturing all over the world.

The Singaporean (Hyflux) is leading membrane technologies manufacturing in Asia and it is one of the unique environmental water treatment companies with operations in Singapore, China, the Middle East, North Africa and India. Hyflux provided integrated solutions

for municipal water treatment as well as for industrial manufacturing processes, including the recycling of spent oils and solvents.

Started in 1989 by Singapore-based entrepreneur Olivia Lum, Hyflux was an early mover into China's nascent industrial water treatment market in 1993, servicing numerous manufacturing plants there. In 1998, to widen Hyflux's market base and accelerate growth, Lum moved into the municipal water treatment market in Singapore. With this, Hyflux sales revenue jumped from S\$17.7 million in 2000 (nine months) to S\$554 million in 2008 and despite the 2008 global recession during which its municipal business remained strong, the company was able to secure large-scale high value projects in North Africa.

As a newcomer, Hyflux leveraged on its innovative water treatment technologies and entrepreneurial drive to grow the business. However by 2009, as a player in the global water treatment business, Hyflux had to prove that it could execute greenfield municipal projects in a far-flung continent and compete with other global water treatment companies in these new markets. To respond to these challenges, Hyflux had been resilient in rapidly growing its human capital and organisational capabilities to match the firm's aggressive market penetration strategies.

Characteristics of Resilient Societies

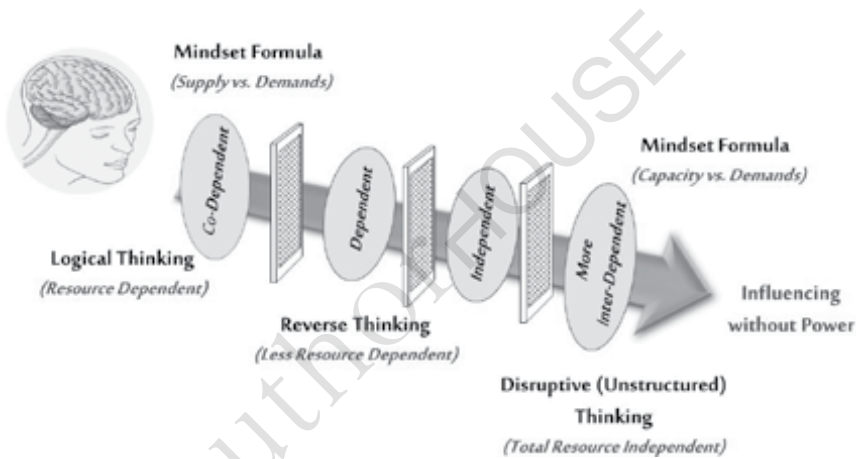
One of the reasons why we don't have resilient societies today is that it is based on traditional logical thinking which is usually it is very resource dependent and it doesn't see how small changes can brings major leaps.

A co-dependent mindset formula usually depends on supply vs. demands. Therefore, the more the mindset is challenged, the more it can be transformed to be more independent. Here the reverse thinking would start to replace the logical thinking which leads to less resource dependence. Figure (10-3) shows how the mindset of individuals, organisation or even societies can be transformed from being co-dependent on resources

and systems to totally interdependent of resources, i.e. with capacity to influence without authority or without power.

As we reach the level interdependence stage, the more we can start utilising and optimising the disruptive (unstructured) thinking, we can not only ensure we'll be more resource independent, but even more focused on raising the capacity when demands rises, i.e. building an resilient inspired mindset formula of (Capacity vs. Demands). Once this formula is realised we would start our capability and competency to build a mindset with very unique resilience.

Figure (10-3) Shifting from non-resilient to resilient societies



Resilience societies would have complex adaptive with high ability to regime shifts. Organic resilience can come from inside the society if it has the capacity to self-organise. The study of complex adaptive systems attempts to explain how complex structures and patterns of interactions can arise from disorder through simple but powerful rules that guide change.

Arthur et al. (1997) identify six properties of complex adaptive economic systems; dispersed interaction, the absence of a global controller, cross-cutting hierarchical organization, continual adaptation, perpetual novelty, and far-from-equilibrium dynamics. Holland (1995) identifies four basic properties of complex adaptive systems: aggregation, non-linearity, diversity, and flows.

Studies on nonlinearity generates path dependency, which refers to local rules of interaction that change as the system evolves and develops.

Resilience Story

Researchers at Washington University have shown that a dynamic enterprise fluctuating between different organizational structures (e.g., centralized vs. decentralized) can be more efficient than one that adheres to a constant model. Indeed, as conditions changed over the past 25 years, major companies such as HP and Ford have deliberately oscillated between a centralized and decentralized structure.

Resilience and Social Welfare

Efficiency of social welfare sector is an indispensable part of social development where the organisation's ability is directly affected by the speed and quality of service development. Therefore, most of resilient countries have a strong social service organisations that play a great role in its capacity building.

Social welfare system includes housing, education and healthcare system, elderly care, children and youth care, home care, community development, rehabilitation, minorities protection, social development, poverty management, social security all are considered to be means for social networking and resilience.

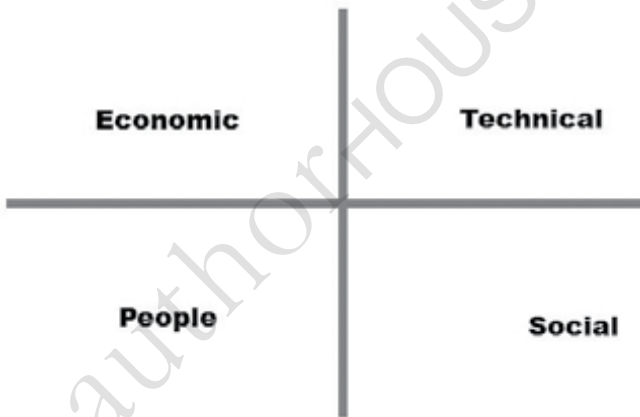
To explore the different resilience capacities of social welfare we need to design, build, and test some of the new systems, platforms, and practices that need to be provisioned so that governments and communities can learn the practice of connectedness as a way of achieving their social, economic, and environmental aspirations.

With resilient social welfare we can grow the community of influence and practice in countries around the world—thinkers, practitioners, senior public leaders, innovators, and entrepreneurs—so that the conversation

about, and the practice of, these new models of open and connected government become “thicker” and more collaborative.

In order to establish resilience in social welfare we need to integrate people life with the economic, social and technical sources of resilience. Thus we need to monitor and measure the transitions of resilience in such sources and understand how well governments and public sector institutions would be performing in relevance to them. The combination of these sources would bring in innovation and productivity. Thus Figure (10-4) helps to turn on the sources of resilient social welfare into practical initiatives that governments and communities can adopt.

Figure (10-4) Show the sources of resilience organisations



Resilience Story

When a translator explained that a woman’s husband was still stuck down in the village, Mike formed a rescue squad with another doctor, an EMT, a young Nepali man, and the patient’s wife. They ran down the mountain as fast as they could and found the patient. The man had sustained a spinal injury and a stroke; neighbors had tied him to a rock pile to stabilize him. Without a stretcher on hand, Mike and the other doctor had to take turns carrying him fireman style on their backs, alternating every 50 feet. A stretcher finally arrived, and

neighbors jumped in to help carry the injured man, switching out two men every three minutes to conserve everyone's energy. Mike is an athlete — he's competed in over five triathlons — but this was more physically demanding than anything he'd ever done before.

The group finally made it back up the mountain and safely transferred the patient to a helicopter to be taken to a local hospital. There are not enough words to convey the bravery of people like Mike, and the International Medical Corps, who are helping the more than 20,000 people injured in the quake.

Understanding Resilience Capacity in World Class Organisations

Resilient organisations are typically able to respond rapidly, to adverse circumstances about operational recovery or continuity and protection of reputation should be paramount. One example is the Inter-Continental Hotels Group, which found itself “in the centre of the storm” when the Arab Spring broke out. It immediately went into crisis management mode and even shared its approach with other hotel groups that were adapting to the political unrest.

Reputational risk can arise from almost everything the company does and doesn't do. “Resilience” has become one of the most important concepts in the risk management approaches in any leading organisation.

The best and most resilient organisations not only think through their risk profiles or the things that could affect them to a greater and lesser extent when those events happen. An increasing number of reputational insurance products are available in the market and are structured as non-physical damage business interruption policies.

Resilient organisations, as shown in Figure (10-5), have mainly three approaches that differentiate their capacity to be resilient. The first approach is the “precautionary” approach which help to build focused, pull

thinking strategy. The second approach is the “business as usual” approach which depends on default driven strategy which uses lots of subconscious practices. Finally, we have the “wait and see” approach which depends in the very basic strategic plans. These approaches they are not necessarily in sequence, but all needed for building a resilient organization.

Figure (10-5) Illustration of Organisation Resilience Opportunity Exploitation



Business resilience is the capacity of companies and their supporting business ecosystems to survive, adapt, and grow no matter what kinds of market stresses and shocks they experience over time, whether sudden or gradual, temporal or chronic. But in order to be resilient, companies – like cities – must be proactive in developing a plan of attack. And this plan of attack must be located not only in where their markets are today, but more importantly, in where their markets are headed tomorrow. Strategies must be forward-looking and future-focused, with the anticipation of shocks and stresses along this future journey.

If any organisation set and practice these approaches they would be more prepared to withstand setbacks and crisis and go well beyond risk management.

Cranfield School of Management investigated the good practices of risk management that resilience brings in as part of report *Roads to Resilience*. Cranfield concluded that the qualities that make companies resilient make them superior in other respects. Among many other things, they have

better reputations, loyal staff and suppliers, and strong relations with their customers. Resilience found to be at the heart of corporate strategy of resilience driven companies. In too many organisations it is still something you do in case things go wrong or a box that the compliance people have to tick. If that is the position, you are missing a great opportunity to become more competitive.

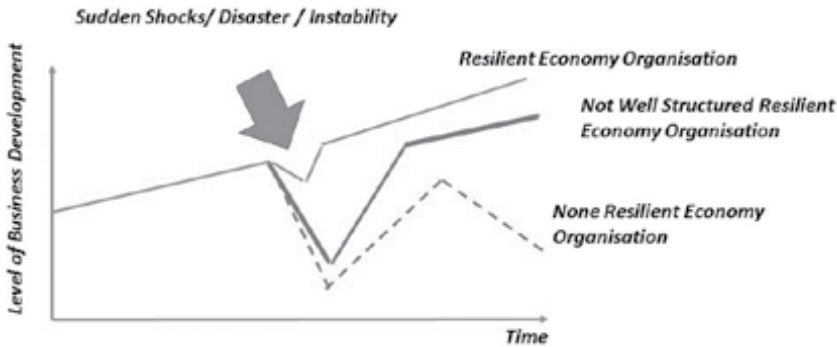
To find out what makes a company resilient, researchers from Cranfield School of Management interviewed senior staff with risk management responsibilities, including chief executives, at AIG, Drax Group, InterContinental Hotels Group, Jaguar Land Rover, Olympic Delivery Authority, The Technology Partnership, Virgin Atlantic and Zurich Insurance.

The Cranfield study proven that organisations become more resilient if they become more responsive to their customers and the markets they serve. They have cultural and behavioural traits that encourage all employees to be flexible, customer focused and alert to danger. Cranfield teams seen that resilient organisations build their capacity to anticipate problems before they develop, partly by seeing things in a different ways while diversifying the flexibility to respond to opportunities as well as adverse or changing circumstances.

Resilient organisations, as per Cranfield study, leaders play a great role in enabling risk information to flow freely throughout the organisation. To ensure that an incident does not escalate into a crisis or disaster, we need to train the organisation staff and proactively prepare their processes on how to restore situation to be normal status by learning from experience. This means we need to ensure that we deal with changes on the spot and turn it to opportunities for improvements.

At Virgin Atlantic, senior executives are easily approachable for new ideas, however they need to presented with a no-blame culture. Such resilient organisations focus usually on enhancing their critical recovery points as part of their design, as shown in Figure (10-6).

Figure (10-6) Critical recovery point for Resilient Organisations



Cranfield study shows also that resilient organisations have dynamic holistic approach to managing risk and in responding to their customers and market's needs. InterContinental Hotels spends in fact lots of its effort into ensuring the right resilience culture of risk management is embedded in the organisation. The hotel chain aims to raise risk awareness at the board, executive committee, throughout the leadership teams where various processes risk in relevance of reputation are deeply discussed.

Many change initiatives can seem to initially “stick” but then somewhere along the way, backsliding occurs. A new way of thinking and behaving is required for change initiatives to really take hold. Once they do and the organization can maintain consistency in the mindset coupled with following new systems and processes, winning is likely to happen. That is why intertwining the culture and values with the new “way of doing things” is imperative.

Organisations as Harvard University, Mayo Clinic Hospitals, Boeing, Kellogg, Procter and Gamble, IBM, and Whirlpool – have remained because of one thing – a willingness to do whatever it takes to remain relevant and resilient, including constant change and adaptation for “what's next”. Such organisations usually develop itself, i.e. its capacity, towards new customer demands, such as developing new business models. These resilient organisation broken the shield of the fear and don't hesitate to experiment in their pursuit of innovation

Resilient organisations are distinguished by their ability create acceptance towards reality, with ability to make meaning out of hardship through embedded values, and their ability to improvise. Many best sellers management book in the last decade emphasised these criteria's to create socio-economic resilience. In Search of Excellence, Good to Great, and Built to Last are just few examples of titles of those best seller books.

Resilience Story

Vancouver in Canada is unique in raising the resilience capacity by striving to become the greenest city in the world by 2020. Vancouver aspires to reduce its emissions 80% below 1990 levels by 2050. Vancouver also scores off the charts on renewable energy with approximately 90% of its energy from renewable sources. Vancouver has the highest number of LEED certified green buildings score very high marks for food security as 48% of the food supply for the Province is sourced locally.

Resilient Cities

City resilience is represented by the capacity its set by its individuals, communities, institutions, businesses, and systems in order to survive, adapt, and grow in case of sudden or chronic stresses and/or shocks.

Resilient cities incorporate readiness for being resilience towards different type of instabilities and stresses, includes financial recession, earthquakes, fires, floods, etc. or any socio-economic situation that strained the fabric of the community.

Resilient cities would also plan to avoid or manage strains or tensions in relevant to unemployment; inefficient public transportation; violence; or utility shortages.

By addressing both the shocks and the stresses, a resilient city becomes more able to respond to adverse events, and is overall better able to deliver basic functions in both good times and bad, to all populations.

Resilient systems withstand, respond to, and adapt more readily to shocks and stresses to emerge stronger after tough times, and live better in good times. Resilience enables cities to evaluate their exposure to specific shocks and stresses, to develop a proactive and integrated plan to address those challenges, and to respond to them more effectively.

The qualities of city resilient systems include being: reflective, robust, flexible, integrated, resourceful, redundant, and inclusive. Enhancing the qualities the individual systems that make up a city will improve the resilience of the city overall.

Being deeply attuned to the realities of their markets, both in the current state and in the likely states reflected in certain future scenarios.

Being anchored in a set of immutable values that begin with what it means for humans to work together to bring great value and experiences to other humans, wherever they are in the world. And... always being reflective about their actions to know that those actions flow out of these values.

Embracing an optimistic sense of meaning and purpose for their future. By definition, an optimistic sense of purpose has to stem out of a collective emotion of love and not fear. Being inclusive and integrated... looking beyond “us versus them”, competitors’ actions, and other roadblocks standing in the way, to see a path toward a better future where “a rising tide raises all ships.”

Providing the robustness that only comes from “capacity redundancy”, which means that rather than pursuing the nth level of efficiency, the pursuit is for the headroom and elbowroom that teams need to deliver greater sustainable value to their markets.

Ensuring the flexibility and capability to respond rapidly to changing market situations, business climates, technology enablers, and other external factors. This means being willing to constantly adapt.

Having an undying hunger for pushing the envelope of what is possible in the pursuit of great value and experiences. This inherently drives the quest for “what’s next”.

Resilient cities would have the capability of providing something for everybody, because it is created by and for everybody. Therefore such cities needs to be designed based on breathing and cultivating resilience. The nature of a place design affects how we become resilient. In the future, we have to think about how we develop cities to enforce this co-creation.

Tokyo is a Japanese city that is considered to be one the most populated and most dense in the world. Tokyo publish annually a climate action plan (CAP) which help the city to enhance the climate adaptation through focusing on renewables and increasing its green spaces and adaptation initiatives. The city also have a resilience plan to encourage its organisation in collaborative efforts to achieve the planned CO2 Reductions.

London is accustomed to showing up on sustainable city rankings due its early planning and integration practices of adaptation for being more resilient and environmental friendly by the significant reduction in traffic and moving towards greener vehicle purchases. New York is trying to become more resilient by enhancing the accessibility and use of rail transit. The city developed more space and park/capita over the last few years.

Resilience Example

With the growing instability in the world, large problems brings in more resilience opportunities and success of connections among diverse sets of ideas, people, and organisations. Paying pensions and benefits, or aspects of security and safety (for example, border control or quarantine systems), the traditional role of government need to be more lean and agile. Improving the lives and opportunities of older people, or people with disabilities make cities more attractive, resilient and sustainable. What will matter most is the quality of the relationships between citizens and government, and often among citizens themselves.

Resilience and Economic Productivity

Resilience driven productivity is about raising the capacity to bounce back, to recover while managing to produce effective outcomes rather results only. Resilience practices sees possibility for better productivity in every challenge.

With adaptability in practice we won't evaluate economic productivity as half-empty or as half-full, but rather in its ability to determine whether or not it's able to adapt to change and bounce back on a quicker timeline. The measures would shift towards what seems our ability to produce effective outcomes even if the situations are instable or reframed.

Resilience economy would first evaluate what the community still able to do even after major disasters. With focus on what hasn't changed. Focus on those things, and in them, you will find the strength to rise above the negative.

We each face our own giants in life, and we all need to be empowered in our own unique ways to defeat those giants. So no matter how big or small the change we currently face or will face at some time in the future, we need to remember that resilience is completely attainable.

Having resilient productivity experts inside organisations we would see failures as temporary setbacks that the organisation can recover from quickly. The productivity experts would work to maintain the positive attitude and practices within the organisation, or community system where they would look for the sense of opportunity during periods of turbulence or ambiguity. No matter how difficult things become, in economic productivity challenges gives a pause to reflect and review aware.

Resilience productivity help to see mistakes as lessons and disappointment are grouped and then incorporated as lessons learned into our strategic plan. Resilient economic productivity helps to deal with things that are beyond our control where there are very little we can do to bring about any change.

When people build a strong preference for resilience productivity they would be able to act independently. Studies shows that resilience depends on reactions or thoughts, besides being more focused on actions and relationships. These four inputs: reaction, thoughts, actions and relationships is what differentiates resilience economy. They also play a great role in the willingness to take risks and make decisions quickly. Having resilience productivity helps to communicate effectively same as driving down the freeway and signalling before changing lanes and letting others know the driver intentions.

Resilience builds trust and prepare the mindset and make it open to differences. Resilient productivity help to take bold risks and try new ideas. The most productive resilient leaders are usually not only interested in their own development, but they are concerned about the development of others.

Resilience is more needed today since we started to encounter more failures during a productive journey. With resilience based productivity, organisations can be more effective at making decisions and moving forward, while when they make the wrong decision, they are quick to make a different decision and move in another direction.

Resilience Story

Nokia's cell phone business demonstrated its resilience in 2000, when one of its key supplier facilities in New Mexico was destroyed by fire. Early recognition of the crisis and wise contingency measures enabled Nokia to secure alternative supplies and avoid any loss of market position. In contrast, Nokia's competitor, Ericsson, was reliant on the same facility, but lost about \$400 million in sales due to slowness in crisis recognition and response, and eventually exited the cell phone business.

Obstacles for Resilience Economy Sustainability

There are many obstacles that prevent people to see the risks of resilience based economy. One of the highest and earliest obstacles for RE is when top leaders stop learning. Resilience need consistent renewal and updating

of change specially when things are going well, change is the last thing people or the organisation want to do. Organizations, however, are in a constant state of change. Responding to change always requires learning.

The other main obstacle of resilience is when people blame everything on the budget. Some organizations make poor decisions when cash flow is strong, which sets the stage for blame and despair when budgets shrink. They use soft money—that is, onetime funding—to fund important positions and programs (which are then cut when funds run out). They fail to monitor the added value of the initiatives they commit to and therefore don't make important revisions that would keep those initiatives relevant and non-negotiable in hard times.

During times of economic fluctuation, non-resilient leaders make cuts across the board without regard for the organization's mission or values which lead to cutting lots of resilience readiness initiatives which make the community more vulnerable to external shocks.

One of the main challenges for resilience economy is the non-availability of key performance indicators (PKI) that measure the level of resilience achieved. KPI's provide essential feedback about how to refine our resilience initiatives and practices. Without proper KPIs many efforts are wasted or even not realised and therefore creates crisis situations tomorrow. Bruch and Menges (2010) call it the “acceleration trap” where organisations get lost in too many different activities, often adopting new initiatives without proper project closure of the earlier ones and/or measuring its outcome.

All the restrictions for resilience economy works on prevent the ability of the socio-economy to bounce back or building of self-efficacy rather than powerlessness. This loss of bounce back comes from the inability of the organisation or the community to learn from both successes and failures. Such learning could however provide key breakthroughs that might riase the capacity to do radical changes towards real development and overcoming chronic challenges.

Resilience Story

Hong Kong is well known for practicing resilience based economy practices for long time. To give just one example Pan Zhonglai and his son Benjamin Pan started their business in 1987 in mobile business and made their first profits in 1988, when they seized the opportunity to develop a buzzer for a Hong Kong distributor. Focusing on technology development, they took an export-oriented growth path and established collaborations with a foreign trade company in Shenzhen, foreign distributors as well as Nanjing University.

Pan resilience business that focused on foresight enabled them to predict early the miniaturisation trend in mobile devices and the demand for well-designed high performance micro-acoustic components and solutions.

Targeting Motorola, the largest player in the Chinese mobile phone market at that time, the father and son pair set up a sales office in the US to understand the American mobile phone market better. The contracts they won from Motorola opened the door to the fast-growing mobile phone market. The pair continued to build AAC's competitive advantages in high quality and fast response products, and did not rely on the low wages in China.

Continuing their resilience Benjamin took over his father's business in 2002, he worked with venture capitalists to transform AAC from a local Chinese family business into a leading global technology enterprise. In 2005, AAC was listed successfully with IPO market cap at US\$430 million and Benjamin knew that this was just the beginning, which added greater pressure for the company to strive hard and succeed.

Resilience Economy Network

Resilient network is very important for any stable economy since it would help to continually sustain the buy-in from individuals who are inspired by what the organisation achieves and who will gladly provide support and resources.

RE need a network that nurture diverse perspectives to make well-informed decisions that ultimately create new realities in organizations.

Resilience may be a highly personalized strategy for developing ideal vehicle for cultural transformations. One way to foster resilience in times of strife and loss is to ask powerful questions during coaching sessions. Good questions elicit ideas about resilience and inspire leaders toward resilient action. Perhaps we are each born with a starting point for resilience. Perhaps events in each of our lives strengthen or compromise our resilience over time. Whether we can ever know the antecedents to resilience in human beings, one thing is certain: Each of us can choose to take action every day, to become resilient leaders of resilient organizations.

George Washington perfectly connected happiness and meaning when he said, “Happiness and moral duty are inseparably connected.” Leaders who choose resilience over defeat not only gain energy to sustain change, but also gain happiness from doing meaningful work that makes a difference for the rest of the world.

Resilience Story

When Airbus began to gain more market share, the management team at Boeing started a resilience economy program that instigate changes to the internal processes while addressing the bureaucracy that controlled the airline style since World War II.

When Boeing demand doubled, management attempted to change production capabilities instantaneously to meet market needs. This change resulted in a manufacturing crisis which affected the corporate reputation of Boeing. Production was then streamlined to increase efficiency.

The focus of the management team changed from setting “airy vision statements” to concentrating on production and costs. McDonnell Douglas was acquired in 1997 but this brought with it a clash of two very strong cultures and suggestions from investors that there had been fraudulent dealings with the McDonnell Douglas shareholders during the merger.

Management adopted resilience economy practices to make the production lines more efficient and increase the levels of communication between the Boeing staff and the suppliers.

Technological change was implemented to regulate Boeing product life cycles. Management diversified out of the traditional airline industry into information services and the space industry. Executive offices were moved from Seattle to Chicago in a move to refocus attention in international growth and remove ties with Boeing prior to the acquisition of McDonnell Douglas.

Resilience as a Prerequisite for Sustainability

Fiksel mentioned about increasing attention towards a company's resilience and the sudden natural disasters in unforeseen supply chain disruptions. To cope with these challenges, businesses need a new paradigm that takes an integrated view of the systemic risks in today's dynamic business environment.

In recent years, a growing number of multinational enterprises, including Dow Chemical, Cisco and General Motors, have launched efforts to improve the inherent resilience of their global operations. They have found that the lessons of resilience are applicable to every enterprise activity, from strategic planning to product development to operations management. They are better able to respond to disruptive forces and better able to seize business opportunities that may open up.

The term "resilience" has quickly entered the corporate lexicon, but there are as many definitions of the word as there are business functions. For example, some define strategic resilience as "the ability to dynamically reinvent business models and strategies as circumstances change." Others prefer to define resilience in operational terms as an extension of business continuity management or the ability to recover from unexpected disruptions such as floods, chemical spills, cyber-threats or terrorist attacks.

In the broadest sense, enterprise resilience encompasses many sustainability concepts, such as agility, adaptability, robustness and continuity, but it goes beyond these tactical notions to the very heart of the enterprise structure and culture. Our definition of enterprise resilience is quite simple: “Resilience is the capacity of an enterprise to survive, adapt, and flourish in the face of turbulent change and uncertainty.”

From this perspective, resilience is not just the ability to bounce back quickly and recover from a disruption. Rather, resilience is a strategic approach to embracing change that addresses both downside and upside possibilities. Resilient enterprises adapt successfully to turbulence by anticipating disruptive changes, recognizing new business opportunities, building strong relationships and designing resilient assets, products and processes.

Resilience is not a substitute for the established methods of enterprise risk management; rather, it enables companies to embrace change by expanding their portfolio of capabilities.

With resilience we can anticipate, prepare for and recover from disruptions and, in some cases, treat disasters as an opportunity for gaining advantage by responding faster than their competitors. Some companies, including General Electric, IBM and Swiss Re, see the emerging interest in resilience as an opportunity for new products, services and markets. For example, resilience is a core concept in IBM’s Smarter Cities business, which offers capabilities such as an Intelligent Operations Centre including geographic information systems, optimization tools, workflow management and a dashboard for real-time situation monitoring.

Resilience Story

In environmental, health and safety (EHS) management, proactive efforts to develop new technologies for conserving resources and eliminating wastes can help to reduce costs, avoid regulatory burdens and develop trust among key constituencies. For example, in 2002 Baxter Healthcare’s annual environmental financial statement showed a savings

of \$65 million, about 3 times its annual expenditures. At the same time, implementation of enterprise-wide EHS management systems and effective crisis management helps to minimize the impact of disruptions and assure business continuity.

Risk Strategies for Organisational Resilience

With the increasing pace and unpredictability of change, resilient companies have shifted from a reactive mode to the proactive design of resilience strategies. When the pace of change is slow and manageable, involving relatively minor fluctuations, companies can use orderly, well-defined business processes that operate precisely and efficiently.

Every business may experience unexpected disruptions that interfere with normal business operations. Disruptions can range from known risks, such as fires and chemical spills, to black swan events that are difficult to anticipate. Risk analysis and emergency response procedures help anticipate common types of disruptions and ensure business continuity. For disruptions that are rare or unpredictable, companies can supplement traditional risk management processes with the capacity to sense early warning signals and respond in a flexible manner.

Gradual changes in the business environment eventually may erode a company's competitive advantages. By using trend forecasting and scenario planning, companies have become more proactive in identifying major paradigm shifts that could influence their strategy, such as the growth of Internet commerce and the emergence of new market segments. To adapt to such trends, many companies have turned to reengineering and change management, although internal change is often difficult and true business transformation is rare.

Increasing globalization and complexity have amplified the turbulence of the business environment, forcing companies to abandon reactive approaches and become wary of future predictions. Catastrophic disruptions are becoming more common, and it has become clear that "business as usual" is a fallacy. Disaster recovery is merely a survival strategy. To remain

successful and flourish under these challenging conditions, companies must anticipate possible futures, develop adaptive capacity and embed resilience thinking into their business processes. For example, General Motors and Toyota, among many other manufacturers, were disrupted by the Fukushima disaster in Japan and have adjusted their supply chain strategies to improve their agility and adaptability.

Today, we call upon the involvement of resilient engineers whom would check the design of the modern organisation to ensure it includes strategy inputs that would ensure stability and smoothly distributing the waves of change rather than moving with them in the beginning and then being prepared for plans B and C in case change occurs. This should ensure the organisational product and process variability and enhance its operating efficiency and higher yield. The flexibility in the organisational design and strategy would help to transform to be a lean organisation where the process would move from being rigid, prescriptive processes to more fluid processes that are sensitive to changing conditions.

Studies shows that the more the organisation manage to focused and develop techniques for efficiency in the business processes, the more it can maintain production even during unplanned disruptions. Here we could mention the printing and publication industry in Lebanon where it survived over the many tensions and wars for about one century now due to both being focused and very efficient. This industry amazingly also always found ways to transport its products through sea, air, land and with affordable prices of the books sold.

New organisational design strategies help to remove buffers that protect against fluctuations and ensure more waste elimination and enhance mobility and flexibility where, when and how to deliver services/products, but with backup resources. This can be more possible today with the optimised collaborative and sharing economy models which actually existing references today. However, embracing change and embedding resilience requires not only a continued focus on internal process excellence, but also an awareness of emerging trends, including regulatory, socioeconomic and environmental changes.

Resilience strategies today shown to be one of the best methodologies to close the gap with UN post-2015 millennium Development Goals. Rose (2013) seen that Sustainable Development Goals, measuring countries level of *resilience* are increasing. Therefore these resilience indicators could be a starting measure for improving resilience in a given country.

Collection of resilient sustainable organisations strategies would help to build resilient society with a dynamic role in the world which can help to play a resilient transformation to the world. Through the spread of high adaptation in the environment of such society we can see more inspiration and innovation practices that flourish the society again and again.

Resilience Story

The case of AB resembles more trends towards in organisations towards being more resilient by improving the assets utilisation to achieve “leaner” operation, developing flexible resources, diversifying the portfolio of available technologies, and coordinating asset deployment across the enterprise. Strategic design of resilience is enhanced through an innovation process that emphasizes value creation for all stakeholders. For example, as part of its worldwide new product development process, 3M routinely re-considered opportunities and issues at each stage of the product life cycle which lead to a better development in manufacturing, distribution and customer use, and disposal. This has led to breakthrough products such as Novec™ fire-fighting foam, which is superior to alternative chemicals in extinguishing efficiency and human safety, and also has extremely low global warming potential.

Reconstruction of Resilience Models

To assess the total output losses (integrated over time), one needs to make an assumption on the reconstruction dynamics. The amount of damages can be a misleading indicator of the reconstruction duration. The 10 billion Euros of reconstruction expenditures after the 2002 floods in Germany are relatively small compared with the country-level

investment capacity: they correspond to only 10 days of total German investments. But reconstruction has been spread out over more than 3 years, suggesting that only a small fraction of investments can be dedicated to reconstruction (even though the return on investment from reconstruction should theoretically be higher than other investments, as suggested in Section 2.2), because of financial and technical constraints. Indeed, the reconstruction capacity is always limited by such constraints and it makes rebuilding after a large scale disaster much longer than after a small one (Benson and Clay, 2004). In other terms, the duration of the shock increases with its magnitude. As a result, the output losses –that depend on the magnitude of the shock and its duration –will increase more than proportionally with direct losses.

Many different models have been used to assess post-disaster output losses, and the most common are Input-Output (IO) or Calculable General Equilibrium (CGE) models. In these models, the economy is described as an ensemble of economic sectors, which interact through intermediate consumptions. These models however describe differently how these different sectors interact with each other, and 16

Resilience Story

The ongoing Syrian civil war has left thousands of people killed, injured, or displaced, while countless homes, hospitals, and schools have been damaged or destroyed. Thair was a student at the Arab International University in Damascus, Syria, when he decided to leave and seek protection in Lebanon.

His time in Lebanon was brief. The growing Syrian refugee population was putting a strain on the Lebanese economy and infrastructure, and tensions were rising. He decided to move on to Cairo, Egypt, staying with a friend and continuing his studies. Again, tension against refugees escalated quickly. Clashes on the street led to a military curfew, and the police interrogated his friend several times, asking if she was hosting Syrians.

To get out of Egypt, Thair saved up \$2,000 to buy a one-way boat ticket to Italy with other refugees. Though there were numerous stories about these boats sinking, with no survivors, Thair's options were limited. He survived the 10-day journey, meeting other inspiring refugees along the way, and eventually managed to make his way to Milan. He had no passport, no money, no clothes, but he was happy to be alive. Thair made his way through Italy and eventually ended up in Western Germany, where his application for political asylum is being processed. Soon, he'll have an interview, then wait three to six months to find out if the German government is to grant him asylum or not.

Thair travelled over 4,000 km to seek asylum. Thousands of Syrian refugees like Thair and his family continue to fight for their survival every single day, getting by only on their own inner resilience and thanks to the people who help them along the way.

Characteristics of Resilient Countries

There are many resilient countries that shown the way for better “Singapore Paradox” refers to the seeming contradiction that a country can be highly vulnerable and yet attain high levels of GDP per capita. Briguglio (2003; 2004) explains this in terms of the juxtaposition of economic vulnerability and economic resilience and proposed a methodological approach in this regard. In this approach economic vulnerability was confined to inherent features which are permanent or quasi-permanent, while economic resilience was associated with man-made measures, which enable a country to withstand or bounce back from the negative effects of external shocks. Briguglio refers to this type of resilience as “nurtured”. Cordina (2004a, b) presents a conceptual application of this approach by showing that saving and capital formation in an economy, in response to a situation of vulnerability, can be important sources of resilience.

On the basis of this distinction, Briguglio (2004) identifies four possible scenarios into which countries may be placed according to their vulnerability and resilience characteristics. These scenarios are termed

as “best-case”, “worst-case”, “self-made”, and “prodigal son”. Countries classified as “self-made” are those with a high degree of inherent economic vulnerability, but which adopt appropriate policies to enable them to cope with or withstand their inherent vulnerability. Countries classified as “self-made” are those that take steps to mitigate their inherent vulnerability by building their economic resilience, thereby reducing the risks associated with exposure to shocks.

Countries falling within the “prodigal son” scenario are those with a relatively low degree of inherent economic vulnerability, but which adopt policies that expose them to the adverse effects of exogenous shocks. The analogy with the prodigal son is that these countries, though “born in a good family”, squander their riches.

The “best-case” scenario applies to countries that are not inherently highly vulnerable and which at the same time adopt resilience-building policies. On the other hand, the “worst-case” scenario refers to countries that are similarly inherently highly vulnerable and adopt policies that exacerbate the negative effects of their vulnerability.

These four scenarios that create resilience countries where the axes measure inherent economic vulnerability and nurtured resilience, respectively.

The vulnerable countries states are weak in building resilience policies that carry inherent features. Their vulnerability features as a country shows that they don't have a control over it. The resilience index would refer to what a country can do to mitigate or exacerbate its inherent vulnerability. Scores on this index would therefore reflect the appropriateness of policy measures. The combination of both vulnerability and resilience indices would indicate the overall risk of being harmed by external shocks due to inherent vulnerability features counterbalanced to different extents by policy measures.

Given that vulnerability refers to permanent or semi-permanent characteristics which render countries more prone to exogenous shocks. Horizontal movement is possible for those countries that adopt measures which build resilience and vice-versa. It would thus be possible for countries

to switch between the worst case and the self-made classifications, or the prodigal son and the best case classifications through changes in their economic policies. By distinguishing between inherent economic vulnerability and nurtured economic resilience, it is possible to create a methodological framework for assessing the risk of being affected by external shocks. Risk has two elements, the first is associated with the inherent conditions of the country that is exposed and the second associated with conditions developed to absorb, cope with or bounce back from external shocks. The risk of being adversely affected by the shock is therefore the combination of the two elements. The negative sign in front of the resilience element indicates that the risk is reduced as resilience builds up.

Economic vulnerability index (see Briguglio, 1995; 1997, Briguglio and Galea, 2003, Farrugia, 2004) is based on the premise that a country's proneness to exogenous shocks. Economic vulnerability stems from a number of inherent economic features, including high degrees of economic openness, export concentration and dependence on strategic imports.

Resilience Story

The merge of Renault and Nissan is an example of resilience economy that need to arise at the start of the company restructure. The merger brings inherent changes, besides the change process does not stop once the merger agreement are signed. Resilience engineering need to support till the completion of the two companies become one. By having this resilience we can ensure that the company culture would be near to what was expected at the merger. Today, both brands Renault and Nissan are unique and still competitive.

Capacity vs. Demand and Shocks

The trade channel plays a great role in a resilience based economy. As cross-border flow of goods and services suffer sudden changes as a result of certain socio-political or socio-economic shocks; this would reduce

the supply or the demand for a country's exports, lowering the price and quantity of goods exported or increase that is imported. A negative external supply shock (e.g. oil price shock), tends to increase import prices, squeezing the organisations profits and thus effecting households real disposable income.

The more the country have diversification in terms of products and trading partners the less vulnerable to shocks to particular trading partners or sectors.

The rise of global value chains has potentially important implications on the trade channel. It may be more useful to capture vulnerabilities to foreign shocks by proactively measuring the global readiness in the value chain and how they are value added when it comes to raising the capacity of the organisation or the country in relevant to shocks.

We believe that one of the best ways to enhance the value chain is to explore opportunities (values) inside a chronic problem. i.e. How tackling such a problem would raise the capacity to meet future sudden shocks. We called this Resilience Engineering, has a major role to play in creating change in different areas of our lives, especially in its quality of wellbeing as discussed in different area of this book. One of the most important constructs of quality of life is education. It is also a source of values and a capacity compared to sudden socio-economic shocks. Through applying resilience engineering on education, we can create organisations, societies and countries that are have vibrant life, resilience and unique contributions. The project of "Educational Services" that we've carried in Bahrain was engineered through capitalising on the capacity opportunities that were strengthened again.

The following educational development, capacity opportunities were explored and then linked together to create "inspiration breakthrough". First opportunity came from the need to measure, appreciate and understand challenges in education process and system. This was followed by understanding the hidden intrinsic powers within the country's educational services, where a learning environment need to be explored

for its ability to create both an inspired and resilience students. For example, does the educational process create a learning from loss and failures. Do the current educational utilise the reverse-thinking to explore more opportunities of learning that would establish more inspiration and resilience capacity?

Resilience Story

Johannes Guttmann, the founder of Sonnentor, used to work for an agriculture company and had many innovative ideas that have always been rejected by his boss. Johannes gone to pursue his dream about creating a self-sustained organic agricultural company that has a unique resilience philosophy with its employees whom should be treated all as partners as they are its biggest sustained asset. Therefore, in March 1988, he went against the advice of his parents and started Sonnentor with 3 partners (organic farmers).

After 30 years today Sonnentor is the leading international brand in trusted organic products with more that 200 organic farmers, 135 employees working at the Headquarter in Austria and another 60 in Czech subsidiary.

Sonnentor is one of the earliest companies in the world whom established resilience economy by drawing up a ***common welfare balance sheet*** in 2011. Since them business has evolved and the company started achieving an annual growth rate of 10-20% due to its most advanced resilience engineering techniques as: training plantation collectors and harvesters, give staff and partners space for responsibility and decision taking, owners free management style (no interference in processes) and most interesting of giving new employees the chance to meet customers, suppliers, and partners.

Therefore, it is not a coincidence that in May 2012 Sonnentor got the Sustainable Entrepreneurship Award (SEA) where Johannes even promised to expand the business with more sustainable opportunities as entering the organic restaurants business, beside the organic food retailing.

If you visit a Sonnentor farm or one of its retail shops you'll find that smile is one of the main things that all the company employees share. Johanna's main goal was to create adequately paid quality jobs in his sector and to make each one of them live a quality life.

Johannes resilience economy policies extended to all the families members where he given opportunity even old farmers –especially grandmothers – to enjoy packaging since they have a lot of free time.

Sonnenor resilience economy policies established procedures for better harvesting for selection and drying, by the intensive trainings for the network of experts which ensured high quality products and sustainable management of natural resources.

Designing Organisational Resilience

Designing organisational resilience targets not only systems, but in fact even the organisational structure. The outcome of this resilience design should lead to minimising the level of suffering that any individual, organisation and/or society might go through. Well-designed resilience would help organisations to achieve self-fulfilment thus reducing being controlled by external influence. Designing enough resilience help to develop better healthy organisational communication that lead to better capacity to be value added.

Designing resilience can enter any type of business. For example, if we establish resilience design in traffic planning we would have more curved roads with more safety in mind and take countermeasures to minimal accidents. One of the projects we've done in the Kingdom in Bahrain was to reduce the total number of accidents in relation to fatal and serious injuries accidents. Lots of collisions were avoided in just 3 months due to adopting built in resilience designs that enhance the safety against accidents whether in main or side roads. One of the most evidenced was minimising the collisions due to changing of traffic lanes. The inputs of the resilience design focused on the causes of accidents where more

resilience mitigation factors and tools were established against accidents due driving misjudging, driving too fast with or without being conscious

Resilience design can be greatly enhanced with modular thinking since it help the designer and end user to zoom in and then zoom out to see the opportunities in any issue from a holistic mindset. This approach help organizations, societies and even nations to build different perspectives about life problems and challenges while being more resource independent and interdependent when it decide to take solutions. This type of thinking helps in building not only resilient mindset, but also more of abundant mindset that sees the world with plenty of solutions.

Resilience Story

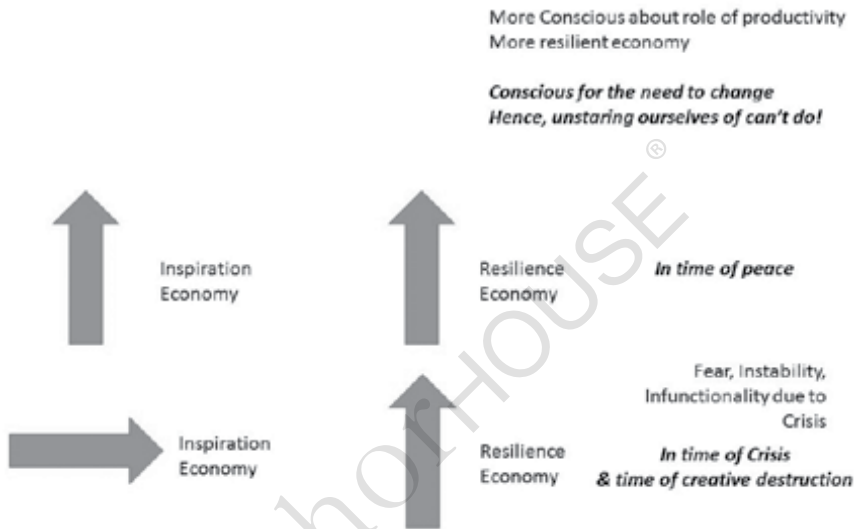
Human-centred design—and the research that goes along with it—is an ambiguous world. The nuances of humanity are messy and hard to pin down; so how can we approach our work to ensure that we're driving to solid product decisions? What can we do to ensure that we're designing unique, transformational, and differentiated solutions that fit seamlessly into people's lives? After having been around the block with excellent, mediocre, and sometimes flat-out bad teams, we realized there were two critical mindsets that made all the difference.

Role of Inspiration Economy in building more Resilient Economy

Inspiration economy practices not only drive productivity and growth, but enable local economies to adapt to both local shocks and long-term pressures (Thompson and Zang 2013). There are many ways in which LEPs can support innovation and entrepreneurship, including through comprehensive and rationalised business support, and by developing linkages between universities and local businesses to enable the commercialisation of research. Innovation is a crucial element in the definition of resilience, and central to businesses' capacity to adapt and renew in anticipation of and response to shocks and long-term changes.

As inspiration economy increases and spread resilience even develop faster specially in times of piece. While the economy is slow in inspiration economy in times of crisis and creative destruction, resilience economy would compensate even more to overcome the different challenges, as per Figure (10-7).

Figure (10-7) Role of Inspiration & Resilience Economy



Employer engagement with schools, colleges and universities is also fundamental to local economic development: these are not only centres for the learning and development of people, but are key locations where those people's talents interact with the local economy. The transition between education and employment is a vulnerable period for young people, and so smoothing that transition, through work experience and wider employer engagement, is a crucial means of minimising youth unemployment (Thompson 2013). Educational institutions are also crucial economic assets which draw in public investment, provide the skills base that underpins local economies, and – especially in the case of universities – drawing talented young people from across the world to study. (For more on the importance of universities to local economies, see Witty 2013).

The questions we asked of plans in this regard included the following. Does the plan promote an economy that is entrepreneurial, and which adapts, innovates and learns in response to both shocks and long-term changes? Does the plan promote employer engagement with schools, colleges and universities?

Resilience Story

Inspiration program between 1930's and 1970's supporting the middle class in USA brought in essential component of advanced socio-economic capacity and well for contribution. New Deal programs such as the Works Progress Administration and the support that the Social Security brought helped bring about an unprecedented rebound in the American middle class, adding 40 million people to the middle class.

Integration and collaboration

Resilience can increase through the preparedness of the local partnerships whether they have direct influence over those policies or not. Resilient plans therefore can be always aligned and integrated with different plans and different bodies in order to maximise the economic impact of investment and achieve wider social and environmental goals. A guiding principle behind the development was formed around functional economic areas.

In order to address issues of integration and coherence we would explore to demonstrate long-term view, local governance structures, and integration of economic policymaking across key areas. Thus resilience would integrate transport, housing, R&D, planning and energy.

Understanding of the interactions between the area and its neighbouring and/or overlapping and local authorities, and the national picture lead to utilisation of the right local powers to prepare for and respond to crises.

Integration of economic resilience lead to more democratic and transparent public–private interaction. Therefore, accountable local authorities gain more powers over public funding, there is wide recognition of the fact that they must be made more accountable and responsive to the areas they

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serve. To be both more effective and more accountable, government must become more rooted with the local business communities and the local resident populations by actively engaging them in its plans and activities.

Engaging with and representing a broad range of businesses is an essential role for every government representative. All businesses should be linked to the local economic development of the country and government should give the rationale for their very existence. There is obvious danger that larger businesses are overrepresented in the process of developing plans, and that governments are less geared toward the needs of the small and medium sized businesses that form the vast majority of their business base. In addition, there is an evident tendency for policymakers to focus on supporting the strongest sectors within an area, which not only leaves other sectors unrepresented but has severe implications for the diversity and therefore economic resilience of the area.

Resilience government have responsibility for promoting the welfare and prosperity not only of businesses but also of the citizens that reside within their economic geographies. So in order to build wider resilience they should demonstrate a basic commitment to being transparent and accountable to local citizens. Government should have an ongoing engagement with businesses and their employees, of all sizes and sectors, besides engagement with civil society and citizens. This is besides the basic requirements as transparency and accountability to the local community.

While in resilience we practice win-win, plans that have a genuine focus on local economic resilience will be clear about how their priorities address these issues. This is particularly important in some key areas of economic development. Understanding and accounting for the impact of different types of transport use in a local area is essential to ensure that environmental sustainability is addressed.

Resilience Story

According to the World Values Survey (2015), people in countries with burgeoning middle classes do not feel that governments are responsible for their success, but rather that it is thrift, hard work, determination, and perseverance that count. Accordingly, they do not support tax increases to pay for the services they ask for. At the same time, in a world where capital is mobile, governments are reluctant to tax business.

There is no social contract binding the middle class to democratic government and, at least in advanced countries, there now even appears to be scepticism about the benefits of globalization for the middle class.

Integration and a Responsive Public Sector

Greater Manchester's plan on social capital and communities draws on a whole-place approach and public service reform is predicated upon encouraging self-reliance and reducing demand.

We are also seeking to broaden the range of devolved accountabilities, including the negotiation of a place-based settlement with government, to secure greater influence over delivery of public services and to enable radical long-term reform. This will provide us with the flexibility to manage and move resources across organisational and policy boundaries at the local level to achieve the best possible outcomes for our people.' Engaging with and representing a broad range of businesses is an essential role for business in economic development, this underpins the rationale for their very existence.

Resilience Story

Resilience is increased by efficiently leveraging external resources and partnerships, exploring and preparing for external change scenarios, maintaining open dialogue with diverse stakeholder groups, and emphasizing social responsibility and corporate citizenship. For example, FedEx Express has enhanced its brand by building a reputation for environmental leadership, partnering with external groups such as Environmental Defense, and adopting sustainable technologies such as 100% recycled packaging and hybrid diesel-powered delivery vans.

Putting the Future in Focus

One of the main resources of wellbeing for any country today is the resilience capacity of its higher institutions (as government organisations, parliamentary system, judicial system organisations, private sector chamber of commerce and industry, social welfare system organisation, central bank and higher education organisations). The more every citizen work to create greater voice and accountability and control of any type of corruption the more we'll be having a better future.

Having focus on the role of all the socio-economic players create great influence on managing and mitigating the risks of occurrences of severe recessions. While living with distortions contributes to build-up vulnerabilities to crisis that need to be addressed. Identifying the most important distortions requires knowledge about the main drivers of vulnerabilities.

Keeping focused on knowledge capital is expected to result in more higher average growth and fewer occurrences of severe recessions.

The focus on natural, human, social and economic “capital stocks” that support well-being both now and in the future help to highlight some of the key risk factors in these areas – ranging from increasing concentrations of atmospheric greenhouse gases to rising obesity, and from recent falls in

trust in governments, to low levels of investment in economic assets (such as buildings, infrastructure, machinery and equipment). While today's picture is only a partial one, bringing this information together in one place, and showing comparative trends over time and across countries, gives a new perspective on current well-being achievements and prospects for their maintenance over time.

One of the most striking global phenomena over the last decade has been the speed at which information technology has reached the remotest places on the planet. Rapidly rising access to mobile telephony is the most obvious of these trends. Expanded Internet access and its wealth of online services is another. The delivery of virtually any information—including computing power, virtual machines, and software—through the cloud is only the newest wave of this evolution. These trends—all of which can delocalize and dematerialize experiences—have powerful implications for resilience.

Mobile phone enhances the resilience economy capacity since it frees individuals from fixed-line communications, making them reachable when away from home. The Internet frees individuals from the communication and socioeconomic context in which they are embedded, giving them access to ideas and markets that aren't constrained by location.

Cloud computing eases resilience through making the competition content accessible anywhere, anytime, on any device, at substantially lower costs. The progressive march of abstraction with its ability to delocalize access to information and creates a platform for resilience.

Mobility in the community, which can decrease traffic and transportation related greenhouse gas emissions, and boost inclusion of less physically mobile workers, such as the disabled or elderly. More mobility decreases exposures to threats, risks, and disruptions which enhances resilience by rerouting, reconfiguring, and relocating problems. Workers can ensure continuity of operations from home, using virtual desktops and video collaboration tools. If local markets are impaired by a recession, distant markets are accessible using the web where mobility can stimulate innovation.

Resilience Story

The developing economy of Lebanon is mainly controlled by the private sector which contributes to 75% of aggregate demand and which is supported by a large banking sector. The IMF forecasted a growth of 7% for Lebanon's real GDP in 2010 and 2011 following 9% growth in 2009 and 8.5% in 2008. It has the 54th richest GDP per capita in the world, and it was forecasted that Lebanon's GDP per capita would reach \$20,000 by 2015, making it one of the strongest economies in the region. However, the Lebanese economy was badly affected by the Syrian civil war. Which reduced the GDP growth to below 1% since 2013.

Lebanon is still suffering also from a very high degree of public debt, the third-highest in the world in terms of the ratio of debt-to-GDP with interest payments consuming 48% of government revenues in 2016, and limiting the government's ability to make public needed investments. However Lebanon economy is still considered to be resilient due to the major contribution of the human capital besides the diversification of the economy between tourism, industrial sector, banking, agriculture, and chemicals. The Lebanese economy is service-oriented; main growth sectors include banking and tourism. There are no restrictions on foreign exchange or capital movement. Therefore, Lebanon is very resilience when it comes to history of economic recovery. The strength of loyalty to family business in Lebanon and the persistence of the SMEs made Lebanon really make realised impressive gains since the launch of "Horizon 2000".

Building Sustained Resilience

Building sustained resilience doesn't happen in a vacuum. Our current work culture is a direct reflection of the increasing complexity and demands faced by businesses globally.

Sustained resilience have a positive effect on our well-being and productivity. Through this type of resilience we can get motivation in the face of chronic negative stress and constantly increasing demands, complexity and change.

Cognitive neuroscientists found that sustained resilience brings mindfulness that enhances the cognitive flexibility, while improving resiliency and work engagement, thereby enhancing

Resilience Story

Greater Good Science Center at UC Berkeley, compassion increases positive emotions, creates positive work relationships, and increases cooperation and collaboration. Compassion training programs such as the one offered by Stanford University's Center for Compassion, Altruism and Research in Education (CCARE) have demonstrated that compassion cultivation practices increase happiness and well-being and decrease stress. Compassion and business effectiveness are not mutually exclusive. Rather, individual, team and organizational success rely on a compassionate work culture.

Resilience Economy Index

We identify resilience economy by gauging the degree of resilience identified in the reaction to common shocks and level and methods employed to identify the different shocks. Therefore any index to be for RE would focus on the incidence of crises, measured as a pronounced fall in GDP and the quality of economic structures.

In this holistic review we tapped on the importance of resilience economy amongst the rising democratic economies and how we should transform our cultures towards being more proactive in both its practices and adaptation. With RE we bring we'll bring the world new cultures of strong adoption to sudden changes, with capacity of fast healing, restoration and effective recovery. Therefore, we believe an effective index should be developed around these criteria's.

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Developing an index of economic resilience is not an easy process and there are many different attempts currently to do so by different research houses. An RE index would be expected to cover four factors: macroeconomic stability, microeconomic market efficiency, governance and social development.

The RE index also would cover the vulnerability of organisations to external disasters, tensions, shocks; whether sudden or chronic. RE index would study how the best practices for countries and how they manage to maintain or develop their GDP in spite of their high exposure to external economic shocks.

An index summarizes the complex phenomena that we need to apply resilience in or for. The resilience index can be used to make the public more aware of certain problems, and to give high profiles to certain trends which can strengthen resilience. This index helps to build communication about issues, including dangers, failures and success stories. The index is a good instrument for drawing attention to the issue being investigated. Thus computing an index of resilience may itself make decision-makers aware of the gravity of these problems.

A problem to be discussed is the relationship between economic resilience (R), vulnerability (V) and global competitiveness index (GCI)*. Some specialists are in favour of a close link between the three indicators because GCI includes the total number of R and V sub-indicators. Other specialists share the opinion that each indicator has its importance and relevance which requires a separate analysis to which some considerations on the interference of the three indicators should be eventually added.

GCI basic requirements with sub-indicators are considered the constructs for economic resilience too. Stability of institutions; infrastructures; macroeconomic and microeconomic environment; healthcare services, education services, are considered important components for better resilience. With the efficiency enhancer sub-indicators: higher education and training; goods market efficiency; labour market efficiency; financial market development; technological readiness; market size; innovation and

sophistication factors enhances the organisation readiness for even more resilience engineering.

Such indicators provide interconnectivity and interdependence, for small and large economies and provide useful value judgments for working out and implementing sustainable development strategies. The multidimensional nature of R and V has to be more effectively coupled with the global competitiveness, public-private partnership and international coordination and cooperation, in the framework of sustainability and complexity sciences, which requires a transition from linear to non-linear approaches.

To measure the dimensions of economic resilience (R) and economic vulnerability (V) socioeconomic information are collected and processed to understand the relation between risks and uncertainty. This should help to increase the international economic interdependence of globalization and increasing the economic, social and environmental discrepancies.

Resilience economy index is visualised to measure how resilient is the society. i.e. How integrative is this society in relevance to the different socio-economic approaches followed? This means that the index would measure the explicit, comprehensive and multidisciplinary approaches to crises and challenges and the different aspects that show resilience. The index measures the public perception of resilience and to make it actively adequate for meet specific organisational or societal condition. i.e. Measuring New York on this index scale would help to gauge how to enhance its diverse economy to make it less vulnerable to sudden disasters. If this measure was available for city of Detroit it would not have depended on single industry as the automobile and became much earlier diversified.

Therefore, all the intentions should go towards constructing a composite index that would have appropriate coverage, simplicity and ease of comprehension, affordability, suitability for international comparisons and transparency. The challenges for setting an index specifically for a resilience economy is the lack or shortage of data and the non-homogenous definitions across countries.

The components of the resilience economy index help to build elements of shock-absorbing and shock-counteracting resilience in an economy can be found in areas of macroeconomic stability, microeconomic market efficiency, good governance and social development. All of these areas feature variables which are highly influenced by economic policy and which can serve for an economy to build its economic resilience to meet the consequences of adverse shocks.

In order to protect any organisation or community from being more vulnerable to sudden shocks we need to adopt modularity in our resilience index design and thinking. Through modular systems, individual units retain some self-sufficiency when disconnected from larger networks, which would be more resilient in times of crisis once.

Life history shows therefore that an index as the Global Competitiveness Index (GCI) for communities with robust local food culture (nearby farms, a farmers market) will be less likely to go hungry if there is a disruption in larger supply chains. While the GCI for only consumer driven communities in which individual households and communities produce as well as consume power would be much more vulnerable to sudden failures. Therefore, the community that build self-sufficiency programs and have built in reserves, a type of wealth, which can build healthy resources that can be a great assets ready for use in time of needs.

Since the Japanese learned the lessons from the repeated wars. It is not surprising that they see their GCI and self-sufficiency as a wealth matters. Hence they became over the years less vulnerable to different devastating earthquakes and more socio-economically resilient.

What differentiated Japan from many countries that got the same sudden disasters is integrity of its ecosystems which bring in the best of both civic and human capital resources to improve again the community readiness in terms of health, education, and economic capacity. This builds the resilient social capital, where Japan again unique in. This proactive

resilience can be seen in the relationships between the families, friends, and colleagues.

In GCI focused communities, social capital is enhanced by levels of trust that are strengthened by social networks. Even on the levels of college communities, we can find that freshmen students with large social networks would have more potential to have stronger immune responses than their isolated peers. Therefore, communities with abundant social capital are better able to withstand and recover from disaster.

RE index is highly needed today as global crises since 1960's have been increasing in it episodes in both impact and size. Many countries and communities are suffering from severe recessions which became not only very frequent but entailing significant costs in terms of loss of income and sudden socio-economic disparity. Having RE index would help to both measure and monitor risks and then mitigate it when such events occur.

With having RE index we could help to enhance the benefits that would come with potential costs of resilience engineering projects. When RE index is monitored and acted upon we raise the capacity of the organisation or the community in mitigating risks and in deciding the most cost-effective ways to deal with rising needs.

In the last chapters we emphasised also the need for RE index indirectly by shedding light on how financial growth or even pro-growth policies can increase economic vulnerability and thus lead the economy to severe recessions. Hence, by having effective RE index decision makers would monitor their growth policies at different stages thus would be able to assess its impact and mitigate its potential risks. Index showing unemployment and inflation indicate also the resilience needed for shock-absorbing nature. The sum of these two variables, also known as the Economic Discomfort Index (or Economic Misery Index).

RE Case Study- Resilience in Solving Hidden Water Leakage Problem

Introduction

The future of resilience economy and resilience engineering is very promising if we know that resilience economy is part of intrinsic powers economies that comprise inspiration economy, youth economy and resilience economy. In this final case study we would show how resilience engineering techniques uses unique approaches in problem solving. In this case, we tackled the socio-economic issue of the huge water leakage in the main water supply network. Resilience economy practices are needed in order to mitigate risks of water loss in the utility water supply system thus minimising extra natural resources wastage.

Part (A) Understanding the Resilience in Mitigating Water Leakage

The water authorities in many of Arab countries spend millions of dollars annually to maintain and rectify the water supply network, still however major of millions of dollars are lost due to water leakage in the network that couldn't controlled over the year. Resilience economy practices along with inspiration economy in order to enhance the country ability to discover early underground leakages through observation and intelligently forecasting where the leakage occurs. The resilience improved during the intelligent decision making.

Part (B) Understanding the Complexity of the Problems

We can't start any problem solving without understanding the essence of why such problem is important and to be effectively solved. Realising the amount of water loss in the country makes us study deeply how a water system leakage might occurs between the source (the main water desalination stations) and delivery points (customers' water input points), despite an increase in the maintenance budget for water pipes and the overall water network.

Realising the impact of the problem on natural resources in the future we first build resilience spirit by understanding the taxonomy of 'water loss' and its differentiation from 'water leakage'.

Part (B) Resilience in Outlining the Scientific Method for Problem Solving

In order to outline the problem the water leakage we need to codify the type of water loss, classify the categories of water loss in terms of place, time, type of area, pipe designs and detection equipment. This means we need to specify the relation and the correlation between seen and hidden water loss (both from an analysis of previous history and field observations).

Part (C) Studying Attitudes in terms of Inspiration Economy Requirements

Without understanding the attitudes we can't solve problems. Then we need to identify the types of emergency readiness and reliability relevant to stopping any water loss discovered (both the seen and the hidden). Identifying the average length of time taken to rectify a loss of water by type and area, besides the type of field response team needed.

The challenges in compacting water loss as regards the type and amount of consumer areas, the age of the water network, the level of consumption, the type of real estate (i.e. normal domestic consumer, public consumer or private company, etc.).

Part (D) Applying Resilience Thinking (Applying Suitable Convergent and Divergent Thinking Approaches)

Resilience mindset is very important again in this stage since we need to use both convergent and divergent thinking to create an opportunity from a challenge or a problem. We need to start reasoning concerning the type and amount of leakage by the level of building heights and the size of population. Using reasoning we can re-engineer the process of water loss and water leakage, and the way this impact the response team.

This means we need to remove the non-value-added steps. This means we need to train, drill and deploy teams to effectively isolate the leakage area in the network from the main water supply network.

The team also should be resilient enough to respond with the suitable water loss detection equipment in areas that are prone to experience hidden water loss due to their history, type of design, and forecast data. Any piloted project need to be tested in three main areas/types of water consumption. Old areas, new areas, large consumers.

Part (E): Start Re-phrasing the Problem

In order to solve a complex problem we need to re-phrase it. Then we need to categorise the type of challenges in each area and segregate the issues of illegal water connections that count for part of the water loss problem. Then we need to design specific water pipes for tight areas which would be unique in size and thickness. These include characteristics to make them flexible yet robust.

Part (F) Resilience in Reducing the Problem's Complexity

We need to be resilient and persistent in tackling the problem complexity through realising the types of defect in water meters that lead to slow detection and hence slow response of the emergency team. We need to monitor the spots where leakage occurs inside houses and study trends or repetitions in terms of the types of connection in relevance to these spots.

By building the 'Water Loss Intelligence Programme' the resilience capacity of the Water Authority to respond proactively to potential water loss on time and with high availability, better efficiency, and more effectively was enhanced by 60%. The water utility teams started to apply 'Mitigation of Risks Programme' to support the 'Water Loss Intelligence Programme'.

This help to minimise water loss by 70% in three years project. Resilience economy practices played great role in sustaining such results till date despite the increase in network size.

CONCLUSION

Resilience is a value that unfolds over a lifetime and has shown to be expressed in different ways and by different disciplines. In this book we've covered a total review and reflections of the role of resilience in creating better socio-economy for individuals, organisations and countries. We have ensured that we review how the spread resilience economy would come from the different disciplines as economy, sociology, management, psychology, engineering, eco systems, government studies and environment.

This work show there are yet many things to be developed by us humans and leading organisations in order to build effective resilience economy with developed resources and case studies. Therefore, resilience economy research focus on adaptation reporting, studying and development.

In the journey we did together in the last chapters we've learned that 'resilience' may refer to a general capacity to thrive in challenging circumstances. If this resilience mechanism applied and incorporated in the socio-economic approaches new mindset would develop within the targeted committee.

The book shows how economic resilience is essential to better withstand adverse shocks and reduce the economic costs associated with them. The limited economic resilience is often related to weak national economic structures. In this book we've reviewed together what type of primary economic structure we need in order to avoid organisation failure in case of shocks.

This book sends a message to all decision makers about dangers of having rigidities in labour markets that limits the competition. The message sent here is that without having a clear resilience economy framework in every organisation, conditions might suddenly deteriorates as business gets complicated and speed of turbulence in daily life increases.

This book is unique because it didn't cover only how to deal with obstacles to a higher shock absorption capacity, but how to deal after the impact of such disruption. With resilience economy we can improve the quality of economic structures and establish better monitoring processes which would improve the organisational capacity to minimise output losses after any adverse economic shock.

Here and in all the journey we've done in previous chapters we emphasised the importance of the ability of the organisations to learn from different crisis such disasters, financial crashes, etc. and how it would minimize its suffering during deep recessions. It is a journey that carries with it continuous learning than only knowledge generation.

As un tap the potentials of RE we should ourselves be more curious what we can do more now in our local economies to build more resilient communities and organisations that can better withstand the kind of shocks that have been experienced in the recent years and turn from it hidden opportunities.

Resilience framework help to create effective resilience growth plans. The framework help to build a systematic approach to building economic resilience. Driving economic growth needs long-term economic resilience encompassing and setting clear priorities in relevance to resilience.

Resilience economy sets the socio-economic system ability to mitigate, withstand disturbances and bounce back, while continuing to function. With resilient systems we can increase diversity and redundancy. A system with diverse components will have responses to a disturbance and is therefore unlikely to fail all at once.

For greater planning around some of the key themes highlighted in our resilience framework, including: taking account of the wider global context, the impact of the recession and local economic strengths and weaknesses.

Promoting responsible business practices and wider social outcomes, including tackling long-term unemployment, poverty and inequality and ensuring a diverse mix of financial instruments, local procurement practices and natural resource strategies.

Integrating plans with neighbouring or collaborating countries and overlapping back plans with other demanding decentralised powers to drive sustainable growth and tackle the local impacts of economic shocks.

Ensuring business and citizen engagement, and the transparency and accountability of the economic planning process, and identifying environmental priorities and trade-offs, including mitigating climate change and developing plans for food, land and energy use.

‘Resilience Network’ should be formed in order to support good practice in building economic resilience within and between areas. Experience to date shows that mutual accountability and the sharing of good practice is a more effective way of encouraging local innovation and embedding new approaches than top-down government guidance. Working within the wider, established and respected Resilience Network would also involve experts and practitioners on resilience issues, again encouraging wider scrutiny, accountability and the sharing of good practice.

Economic structures are measured by a wide set of institutional indicators that capture how the different markets (labour and product) work, how framework conditions are set (e.g. efficiency of the judicial system, strength of the regulatory environment, amount of administrative burdens) and how the government interacts with the economy (i.e. efficiency of public sector and tax administration, state rights).

We find robust evidence that strong and flexible institutions increase the resilience towards adverse shocks. For a common shock, a country with less efficient economic structures can on average suffer up to twice the output

loss in a given year compared to the case where the country is at frontier of institutional parameters. In a similar fashion, other empirical results show that the likelihood of a severe economic crisis is significantly reduced if a country exhibits most flexible and adaptable institutions.

We use these empirical results to draw policy conclusions, in particular in light of the current debate on strengthening economic governance in the euro area. Juncker et al (2015) call in the Five Presidents' Report for a "convergence process towards more resilient economic structures". In this context, the above exercise can be used to inform policy makers on which structural variables should be targeted to increase country resilience and how these variables should be reconciled with developments in observable macroeconomic data.

Questions to Provoke your thoughts

- What change do we seek from Resilience Economy?
- What type of actions needed to create a transformation towards resilience economy?
- What type of powers of resilience economy in your community?
- What are the resilience values that acts as drivers and motivators towards resilience economy?

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APPENDIX

Appendix (A) - Brief On the “International Inspiration Economy Project”

The International Inspiration Economy Project based on the success of the collective of two year (9/2015 till 9/2017) focused concepts efforts that lead to advanced concepts development, series of projects, forums, labs, academic programs, publications, institutions, NGO societies and partners centres that helped to spread the concepts of Inspiration Economy, Resilience Economy and Youth Economy, that all lead to solving chronic socio-economic issues with minimal resources and based on the concept of “Influencing without Power”. The below Figure (A-1) shows the integration between the three economies that have been developed by Inspiration Economies.

Figure (A-1) Holistic View of Inspiration Economy Project Concept



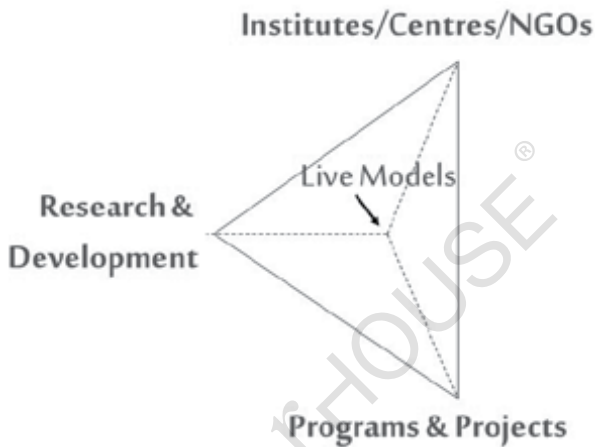
Therefore, this international project is an initiative targeting to bring positive changes at the level of experienced outcomes in the scope of socio-economy. It is a project that is going to collect hundreds of cases for cracking out human problems without using resources.

All our institutes, associations, societies, centres, projects, media, books publications and scientific journals target to do this socio-economic development through developing communities and organisations that belief in more realised effective outcomes than just results. The IE project in short is can minimise more unwanted social status, conditions, issues and/or problems as i.e. poverty, youth migration, deterioration of quality of life, etc. and its relevant impacts thus we can make more socio-economies to flourish.

All Inspiration Economy channels used in the business model targets to create a world of economic impact through inspirational societies and institutions. The main scope of the business model is reflected in Figure (A-2) which shows how much we need to have an integrated and coherent science to establish live models that occur and spread through three

main areas: institutes and NGOs that guarantee institutionalization and sustainability of the inspiration economy journey and its development, then followed by projects and programs that make a difference and push towards do more field experiments. Then supported by an important third angle that scientific publication.

Figure (A-2) Main 3 Variables of Inspiration Economy



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He is considered a leading expert in the areas of Excellence, Knowledge, Innovation, Inspiration, Change Management and enhancement of Competitiveness for over 25 years, being a retired professor from University of Bahrain, he is still visiting professor for MBA programs in different countries in MENA region. Dr Bubeji is also the Founder of Inspiration & Resilience Economy Journal & Int'l Youth Economy Journal.

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