INVENTION, INNOVATION AND INNOVATIVE PRACTICES: A REASON TO STUDY IN A VUCA PERSPECTIVE

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Received April 2017; accepted June 2017

Abstracts

Invention may be described as an action towards creating something new, typically a process or a device.' Innovation is described as an idea and its outcome interpreted as new by individuals and also seen as a multiple application of invention. Innovators are individuals who carry out innovation, create most of the wealth, new or a proportionate jump from the existing, while others tend to safeguard it. Much of the growth comes from innovators who may also be entrepreneurs (Gartner, 1989) leading to creation of employment. These innovators and even entrepreneurs bestow new value to old assets. Create entirely new fountains of wealth. Take the Indian example of Flipkart, Inmobi, Quikr, Olacabs, Paytm, Oyo rooms and many more who have created wealth with barely any base. Many large companies have also been successful in creation of wealth, like the Wipro, Bharti Telecom, TCS and many more companies of its kind. This wealth creation trend is similar around the world. Most of these Innovative companies have experienced the continuous challenge of volatility, uncertainty, complexity and ambiguity (VUCA) environment. The question is if innovation & entrepreneurship is restricted to start-ups? Some larger companies do also engage in creation of wealth and that is the basis of their profitable existence. Thus it is necessary to examine the factors why some companies are able to create more wealth and value than others! Why certain nations do better than others and what is the underlying cause for such successes in creation of wealth?

Research paper

Keywords: Invention, Innovation, Innovative practices, entrepreneurship, VUCA

Reference to this paper should be made as follows: Joshi, M. (2017). Invention, Innovation and Innovative practices: a reason to study in a VUCA perspective, *Journal of Entrepreneurship, Business and Economics*, 5(2), 87–109.

Introduction

Rogers (1983) defines innovation as an idea, practice, or object that is perceived as new by individuals or units that adopt it. Yet few other definition on innovation describes as "something that is new or improved and that which creates value". Thompson (1960) defines innovation as "the ability to provide products and services differentiated from the competition and made profitable by their value to their customer". We can thus see that innovation implies 'newness' or 'being different from the rest'. Let us first take a journey into the roots of invention that may be loosely defined as a higher order of invention.

The Roots of Invention

'Is necessity the mother of invention?' On the contrary, the journey to a few inventions that changed the world shall illustrate how 'invention is the mother of necessity'. It's the creation of social compulsions, as no one knows how to avoid control. What necessity gives birth to, is merely improvisation, a very different thing we all encounter. Invention off shoots from a celestial dissatisfaction with things the way they are and a passion that man can do better. It is the belief we should do our paramount to persuade in progression (The international handbook on innovation, 2003).

Since the evolution of the human race there has been a remarkable difference between the life of human beings and animals. There are few geniuses who made our civilisation possible? Only a few thousand - say .00001 per cent of self-inspired individuals have had the creative genius to conceive something new and useful to the mankind.. This creative new class has transformed education and lead to continuous improvement in the way

we live and think today. So, who, then, are these inventors? What motivates them? Are they born? How can they be encouraged? What have they in special that others do not have in terms creative dimension (Howard, 1994)? Historically, inventors have struggled for recognition. They have been neglected and even ridiculed. Intense persistence, tenacity, optimism, originality of approach with a combination of mystical conviction is all that they possessed. Above all, these they demonstrated an extreme level of independence.

S. G. Brown, the American born holder of 235 patents in telegraphy, radio and gyro compass design, had something to say on these inventors. "If there was any control over him and his work every idea would stop". Yet another great radio inventor, the American Lee de Forest; stated that he found it difficult to work 'under conditions short of complete autonomy'. It is said that De Forest worked in isolation and poverty of opportunity and experimented.

So, is contemplation, imagination and speculation, the roots of invention? It is clear that inventors in general are motivated much less by the desire in making money than by the challenge of generating solutions to an intellectual problem. While a minority of inventors have become rich, others have remained bankrupt, only to see their ideas used by others. Thomas Alva Edison also reported, of having made very little profit from his inventions. The irony is most inventors remain poor while those who exploited their ideas as innovators became rich. For example, the original patents for the zip fastener were attempted in 1893. The first models proved unsatisfactory and were difficult to manufacture. It then took until 1913 to solve the

manufacturing and design related problems. However, it was only in 1923 when these zip fasteners were commercially marketed.

Inventors have often been slow to see the possibilities of their invention. From James Watt, who strongly opposed Richard Trevithick's high-pressure steam engine, to Marconi, who told Baird that he was not interested in television and who earlier had not been interested in wireless telephony are few such examples. Baird, actually from his perspective saw no future for the cathode-ray tube, which later became the corner stone of television.

Hence, the inventor's greatest asset is to be free of the conservative wisdom. Many inventors were neither remotely connected in their inventions they contributed. Once such example are the inventors of Kodachrome colour film, Leopold Mannes and Leoplod Godowsky, who were musicians! George Eastman (of Eastman Kodak) was a book-keeper in a bank. Ladislao Biro, the inventor of the ballpoint pen, was a sculptor, a painter and a journalist. King Camp Gillette was a travelling salesman in bottle-caps. The hovercraft was a contribution by a former radio engineer, Christopher Cockerell and xerography by a patents expert, Chester Carlson. Many inventors expressed that if they had realised the difficulties, they would have never started!

Earlier in the society, if the need of any invention was expressed, it was bitterly cut down from all angles and hence forced the creative geniuses to radically rethink in expressing their ideas. But unlikely as of past, it has off late become necessary to innovate for survival.

The social effects of inventions can be much more far reaching and longer. The inventions in the field of automotive, shipping, aeroplane etc. have deeply transformed the way people move about, a radical in its own

category. The sweeping changes that the telecommunication sector has witnessed, is an example of creative thinking. Television has changed the way we see the world across boundaries. Most of the inventions have transformed the way we all really think and act today. Electricity was one of the biggest achievements that the civilisation has gained from. Chip industry, another path breaking revolution has become the driving force in almost all industries.

The inventions that refused to fail

While many inventions have met with a warm welcome, others have been greeted with scepticism, criticism and rejection. Many struggled for acceptance. The critics began by arguing that they will never work; or if all it came to the market, it shall never be economic; and even if they are economic, they are too visionary and shall be never really needed.

In 1926 a British astronomer Alexander Bickerton declared of shooting at the moon. It was termed as a foolish idea which later, i.e. 40 years hence forth, Neil Armstrong, mission commander of the American Apollo XI spacecraft proved to become the first man to walk on the moon. Then emerged the German rocket engineer Wernher van Braun who saw his V-2 missile rockets fired in action. The stories show exemplary courage by the inventors while conceiving their ideas and putting them into actions. Few of these 'impossible inventions' undoubtedly worked. In 1897 the British Admiralty rejected the turbine-engine boat designed by Charles Parsons. It was termed as 'uncontrollable', but within a few years the entire British Navy was powered by turbines.

It has been observed that even scientists themselves are often equally uninspired. Rutherford followed an advice by Kelvin in exploring further on 'Hertzian waves' and so denied mankind the chance to have radio and television. Instead, he suggested that Rutherford should investigate the newly discovered subject of radioactivity. Later on the birth of atom bomb resulted from his work on atomic structure. German physicist Heinrich Hertz, the discoverer of radio waves, warned Guglielmo Marconi that his experiments were bound to fail and it was a waste of time. Marconi pursued and in 1895 sent his first wireless signal. Hertz had been proven wrong.

All these Inventions were the end results of the far sighted thinking by its inventors (creators). At times, they were 'far ahead of their time', and could not find the 'innovative outcome' of their intellectual contribution to the society. But few could actually achieve this, and through "innovations" or 'innovative practices' helped the society to acquire the benefits and progress further.

Innovative practices- A reason to study

As said earlier, Innovators internationally, create most of the wealth, new or a proportionate jump from the existing. Much of this growth comes from the entrepreneurs and this leads to creation of employment. These innovators confer new value to old assets. Create entirely new fountains of wealth. The question is if innovation is more predominant to start-ups? The answer is no. Some of the larger companies do also engage in creation of wealth via continuous innovation and that is the basis of their profitable existence. However, adolescent companies engage in this process more frequently than the older and larger counterparts. Thus, it is necessary to re-

search why some companies are able to create more value than others! How do some sectors create more wealth than others? Why certain nations do better than others and what is the underlying cause for such successes in creation of wealth? These questions need continuous examination by the researchers to ponder upon. Do innovations and innovative practices answer the above queries?

'Strategic innovation' is the answer to these questions in brief. Innovation is something which has not happened before and is valued by the patrons and society. It is termed as strategic because such innovations have everlasting impact on the survival of the firm engaged in true level of competitive entrepreneurship. These strategic innovations may emanate in the field of new technology, like Information Technology. They can emerge from the discovery of new and more convenient location, like in retailing. They can come in the form of new raw materials or discovery of new sources of raw material, like fibre optics, or alloys, or new oil and gas finds. They can be in the form of product or services like new credit cards or mobile phones. They can come from new forms of organisations like strategic alliances, flat organisations, the ambidextrous organisations that can manage contradictions like short-term versus long-term, control and autonomy. They can come in marketing practices like customer management relations and in boundary relationship management. In fact the scope and possibilities or innovations is infinite and difficult to concise and build boundaries.

'Innovativeness' is thus an intangible asset that drives such new combinations. The start-ups assault the established giants with an innovation as its 'lethal weapon'. The innovative entrepreneurs overthrow the industry structures by inventing new rules of the game, while established players en-

gage in old competitive rules. They continue to follow a fixed conventional formula and suffer from gratification, a disease that kills most of them both in short and long. The start-ups engage in inventing new formulae. Their energies are riveted on the outside and these are the customers, the driving force for the existence of the firms committed to growth through innovation, while manoeuvring through uncertainties.

Let's us recall few such Indian entrepreneurs (Jain & Akbar, 1988), who in turn through their constant persuasiveness created wealth. Suratbased Suresh Aggarwal, owners of brands like Dandi Namak, Friendly wash and Kuwar Ajay Sarees created business with turnover of Rs 250 crores in 20 years. C.K. Ranganathan with 234 crores in turnover from Chik and Nyle shampoo, fairever fairness cream etc, or Darshan Patel with Rs.165 crores from Moov, Dermi cool, Itch guard, Ring guard and Borosoft. They began modest, had no fancy degrees but had the vision, courage, and competence to build their empire. In the past, Krasahn Bhai Patel of Nirma fame, Dhirubhai Ambani of Reliance group of industries, etc have demonstrated the competence of entrepreneurial and innovative vision. Look at few recent Indian successful start-ups like flipkart, Oyorooms, Inmobi, Ola cabs, Paytm etc to name a few who have virtually created entirely new set of wealth from a humble journey and have emerged as a unicorn start-up, a nomenclature whereby the start-ups are valued over one billion USD.

However, we cannot term all start-ups to be innovative. The majority trace to the "gold rush". They are imitators of the pioneers who in turn have left some successful formulae. It is also true that some such pioneers may get reluctantly compelled under the weight of their innovations, there by bringing their innovations too early to the markets, or get acquired by the

large established players, or too late to be crushed by the existing giants to let them have time to steer around. It is estimated that more than 90% of these new firms do not celebrate their 5th birth day. In fact, of the remaining only 10% are the real time innovators. They are the actual ones engaged in creation of most of the wealth. Even fortune 500 speaks about the average age of the large firms, which does not seem to cross 40 years. The survivors in the turbulent environment often use innovation as their survival remedy. They reinforce their organisations by restructuring and to become lively and entrepreneurial. They are driven by innovation(s) and strict growth orientation. They rekindle the entrepreneurial spirit in the drooping spirits of the old organisations.

India today boasts of 3.4 million small companies. Perhaps, only 0.1 % (3400) are truly entrepreneurial set ups; in the sense of being innovative and growth oriented. Rests of them (99.9%) are either imitators and forced by growth orientation. This orientation may be as a result of fear of failure or lack of vision (foresight and insight). A large majority is engaged into business for want of improved opportunities or else pushed by tradition while they lack passion and effectiveness.

Let us examine some factors why some individuals and companies (sectors) are able to create more value than others!

The Fear of failure

For some individuals, the fear of failure may arise either from the strategic weaknesses in the individual's life. These may be the form of family responsibilities, lack of resources or skills etc. It can emerge out as a sense of insufficiency to deal with uncertainty. It would be termed as more

of psychological fear rather than the actual ground reality. The realities are based upon the conditioning arising out of the succession of failures or/and limited success. It is difficult to describe, quantify or bring qualitatively the kind of fear one is exposed to. On the contrary those who are able to counter volatility, uncertainty, complexity & ambiguity (VUCA) perspective in their life early, they emerge as successful innovators. This applies to the entrepreneurial firm as well, which is engaged in bringing continuous innovation and innovative practices.

Power of Vision

No doubt, an entrepreneurial venture(s) and innovations is/are inherently risky and expensive. It demands capability to spot opportunities, experiment, learn to mitigate VUCA (Abidi & Joshi, 2015) and in developing a concrete picture of what one wants to achieve and the intellectual roadmap to reach there. The driving force is a sense of being effective. Most of the successful ventures are built around individual competencies whether is technical or commercial. Many a times the vision may just be a dream and false belief that 'I can do it'. Now, whether a vision is a dream or a concrete actionable objective, it can be only assessed after the experimentation and erudition. In real life most entrepreneurs undergo false starts, failed ventures but land to better insight based on wisdom. Many of these entrepreneurs vacillate heavily and give up. Self-effectiveness has driven many entrepreneurs out of their comfortable zone. The vision, once it concretises its shape, drives the venture creation comparatively quickly. The feeling of having discovered a success formula prevails upon.

Innovators or firms engaged in innovation keep recognising the increasing horizon for opportunities. They keep scanning the environment meticulously with a positive psychological framework and attitude. They see possibilities at places and times others see chaos and disorder. Growth and continuous innovation mediate as the key drivers for the new ventures. They rigorously engage in evaluating/deciphering new ways to solve emerging problems like convincing investors & customers, aligning suppliers and attracting the employees. They learn both from both negative and positive outcomes of their entrepreneurial actions. Hence, the emerging growth becomes their motivation for auxiliary growth. Their disappointments are converted into knowledge about the road blocks. Role of chance and luck cannot be ignored, as both engage in bringing happy outcomes sometimes and many a times surprising failures. It has been said that "luck favours the prepared", while 'the odds are more in favour than against'.

Thus, to become an Innovator and be engaged in the innovation process, one needs to initiate the following (Joshi, 2007):

- (1) Firstly, think the choice of being entrepreneurial as a better choice. This may need a thorough evaluation of rewards and risks involved with respect to the opportunity costs-benefits. If the benefits outstrip the costs, the time is to plunge the opportunity, seize and act upon. The rewards and costs could be psychological and financial.
- (2) Make an inventory of likes and dislikes based on preceding experiences and to discover from them.
- (3) Search for market gaps and in personal competencies, skill sets and in the relationship networks, as this may be imperatives to

- develop upon the market opportunities. It may also exist in the weaknesses of competitive offering, customer frustrations with existing product or services.
- (4) Assess the profile of the potential customers. Study and test on restricted customers whether they really feel the need for the product or services that might fill the need gaps. Hence, asses the size of the market and make corrections while forecasting.
- (5) Configure as to how to meet the customer expectations. One may develop a business model to deliver customer value. Then it is mandatory to evaluate what and how would you deliver better, cheaper of faster services and products.
- (6) This study needs to carried out on competing products and services available in the market and develop upon a strategy, as to how to counter the competitive out bursts. Then develop a firm's infrastructure. Identify the supporters and road blocks.
- (7) Then choose the location and the probable core team members.
- (8) It becomes imperative to prepare a business plan with an implementation schedule. This enables the flow of thoughts in to practicable and working ideas.
- (9) Keep the strategy flexible and formulate investments after examining continuous feedback.
- (10) Implement the business plan in an efficient and effective manner, solving emerging problems continuously without getting disconsolate. This is the most difficult stage of the venture as it demands perseverance, consistency and persistence.

- (11) Then make trial runs both for production and marketing with outmost care. Deploy the feedback and incorporate changes in the business model, strategy, business plan and in implementation.
- (12) Keep working on the growth plan that takes you close to the vision. Never sit upon an Innovation for a long, it has chances of being either replicated, adapted by the competition or be obsolete as per the market requirements.

The presence of innovation in old and in new ventures is significantly dependent on the environmental conditions, i.e. the local, regional, national and international. The VUCA environment comprises of the knowledge resources available with associations, academia, labour pool, professionals, infrastructure, other related industries, suppliers and customers, local laws and entrepreneurial culture. The regional and national environment comprises of the favourable policy and institutional framework that may fit the evolving enterprise.

In India the major curse resisting innovation & entrepreneurship has been the inefficient bureaucracy, complicated labour, taxation and company laws and restrictive infra structural facilities. The government must deliver on the ground in the elimination of the 'inspector Raj'. This will reduce transaction costs. Secondly, it is an urgent need to help the existing businesses to sustain their operations, while encouraging new businesses to emerge. However, in spite of all the empathetic environmental conditions, the passionate but thoughtful pursuit of a vision by the entrepreneurs, innovation will emerge as the single most cause for the success of a venture. It is

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the creative capabilities of people and innovative outputs that drive an economy.

The VUCA perspective

Worldwide it is accepted that the success of any organisation is as a result of its capacity to innovate. The days are gone when the organisations had a monopoly and could either sustain or run their businesses without being shirked by the competition and volatility. The changing patterns of the competition desire a shift from the old to newer practices in all domains. Organisations cannot live and perform in their 'cocoon'. Environment is fast changing and uncertain and that each organisation has to create its own benchmarks to survive and perform, whether local, regional or global; the context may change depending upon the size of the organisation and its operative platforms. Markets are growing and so is the complexity with the size of the customer base. The buying capacity is also witnessing changing patterns and with it are the desires and needs. The gap is being fulfilled by the entry of new products and services to this new customer base and the cycle continues with ambiguity around, leaping to creation of newer markets, newer firms etc. The cycle is expanding and only those who can cater to the fast changing needs and desires by its customers can retain them as 'brand loyalist'. The rest shall perish to the outcome of innovative practices from the competition. It's high time for the local companies to endeavour in acquiring world class competencies and appreciate innovation

Understanding Innovation

Various definitions have emerged from different perspectives, while reviewing the expanding literature on innovation. Rogers (1983) defines innovation as a practice, which is perceived as new by individuals while Damanpour (1991) defines innovation as "the adoption of an internally generated or purchased device, system, policy, program, process, product, or service that is new to the adopting organisation". Most definitions imply 'newness' or 'being dissimilar from the rest'.

The entrepreneurial firms are typically small, in most cases are family-owned (Brockhaus, 1994), fast-growing (Drucker, 1985), and innovative. Entrepreneurial firms have a strong commitment to creating and introducing new products or services to the market. This may happen well before the competition. Miller (1983) defines an entrepreneurial firm as, "the one that engages in product market innovation, undertakes risky ventures, and is first to come up with proactive innovations, beating competitors to the punch". These firms use new products or services to achieve growth, profitability, significant market share, higher prices, while establishing industry standards, highlighting the importance of new product or service development to the understanding of a firm's entrepreneurial activities. Therefore, the identification of the factors that influence innovation helps in appreciating our understanding on entrepreneurship (Nair & Pandey, 2006) and firm performance.

Innovation as a competitive advantage

Researchers have tried to bring in a strong relation between product innovation and market performance. The need for innovation is driven by a

lot of factors, some of which may range from survival, to competitive edging to passion for connecting new ideas to performance. Product differentiation based on superior quality or other factors is associated with higher than average profitability. Products that are differentiated on both quality and other features achieve twice the normal returns on investment. Firms must harness capability in developing new products to stay ahead of competition. Companies are speedily recognising that the customers have changed their socio economic status, thus shifting their expectations for the companies. At the same time competition has changed the dimensions by introducing new products & processes, taking the use of technology and as a result, the new positioning of the market has emerged.

Innovation (Jones, 2003) impacts the bottom line of the organisation (Zaltman, et al., 1973) and it applies to products and services as well. It is relevant to most of the industries and does not imply very high investments in technology or design (Verganti, 2006). It can occur in areas other than R&D and marketing. Innovation needs to be learnt and can happen in most of the companies. It stimulates the organisation. Innovation can be managed and also measured.

The Product and Process Innovation

As per research, product and process innovation has occupied the central position of discussions in innovation studies (Abernathy and Utterbuck, 1978; Tushman and Anderson, 1988). Brown and Eisenhardt (1995) suggested that innovation is concerned with the issue of new product development. Hence, the innovativeness of a firm is assessed on the creation of new product in relation to commercial purpose, in addition to the acceptance

of new technology or knowledge. Thus, Innovativeness can be defined as the ability of a firm to constantly introduce new products or processes thereby capitalising market (Hills, 1994) opportunities (Hills, et al., 1997). Embracing of new technology cannot be ignored, in order to stay ahead. There is no distinctive relation between the product and process innovation, however, what emerges out of a process innovation, could be a product innovation, as a new product in the market place. And each product innovation would then drive process innovation to absorb the technology or else disseminate it to the customer, while orienting it appropriately. Product innovation would be tangible, while the process innovation are intangible and aid to it. It can be intermediately concluded that product innovation to be the drivers to process innovations.

Innovation, structure, strategy, and environment

Further research on innovation has focussed on three levels i.e. the industry, organisational and the project level. At the industry level, innovation is connected with the development of new scientific technology and the patterns of its diffusion across industrial sectors or even countries impacted over time (Abernathy, and Utterbuck, 1978). At the organisational level, innovation focuses on the structure (Herbig, 1994) and processes by which organisations adopt or produce innovation, and what actual practices employed in the management of innovation (Brown and Eisenhardt, 1995). The review of precedent studies on innovation is focused at the organisational level. At the project level, innovation is concerned with explicit projects for product development or fixing of new technology.

At the organisational level, research establishes that it is different from the other two streams. It responses, 'what organisational characteristics (Tushman & Nadler, 1986) determine organisational innovativeness'. The most traditional study on innovation was focused on organisational structure as the determinant of innovation performance, based on a study by Burns and Stalker (1961) who concluded that the organic type organisations were more flourishing in adopting innovations rather than the mechanistic ones. It has been examined that there are linkages between innovation performance and the strategy adopted by a firm by considering external factors, such as business environment. An organisation will continuously craft its strategy to respond towards the challenge of business environment where it intends to operate. The strategic choice will henceforth come in action. Thus firms with the most aggressive posture shall survive the fierce competition. This aggression leads to innovativeness that differentiates them from the others in the 'flock', as they readily adopt the new products and processes in their systems for the strategic advantage to the consumer. Such organisations offer a flexible outlook, incorporating dynamic changes as the need may be.

Innovation in family & non family firms

There is a general understanding in the family business literature that a business owned and managed by a family is termed as family business. The nature of the family constituent has a direct influence on the family businesses. These attributes distinguish family enterprises from other firms (Tanewski, et al., 2003. A family business is defined as one, in which the owners regard their enterprise(s) as a family firm. Any one of the following three criteria hold true for the family business, either 50% or more of the

possession is held by a single family; or a single family group is effectively controlling the business; and a significant amount of the senior management is drawn from the same family. Family and non-family owned firms not only differ in their innovation performance, but they also encompass different strategic orientations. Researchers argue that family businesses are complex entities because of their governance systems. Family businesses may position less emphasis on industry leadership. There have been attempts to determine, whether family and non-family businesses differ in their processes of innovation. Family run businesses are more focused on family centred issues. Yet another study contrasted, that because of family private ownership, family firms can take unusual market risks that publicly held companies cannot. Thus it has been found that family firms differ from non-family firms in a number of key areas, such as strategic posture and innovation being the driving seat of non-family firms in existence.

Conclusion: why to innovate?

An entrepreneur is constantly challenged by VUCA environment, hence, needs to innovate to mitigate risks for survival? Thus if innovation is so relevant, then how and where it takes birth and can be applied to needs further investigation? The challenges to implementation of innovation are many (Klein & Sorra, 1996)

Since the 1980's staying competitive is the buzz word. From total quality management to business process reengineering it was focussed on the changing processes and establishing benchmark for upgraded performances. As new opportunities have been identified or come across, the new companies have attempted to exploit it. Innovation has since then become

the driver to growth or termed as 'growth engine' (Akbar, 2002). It has been at the fore front of growth in developing new products and services for many applications unaccounted. Each successful company is engaged in the successful implementation of innovative plans that position itself in the real world, whereby standing it out competitive to its rivals. The companies have adopted innovation as the heart to their business strategy in challenging the conventional wisdom and in redefining the new rules for the market challenges.

It is a key concern to all the firms engaged in the warfare of 'exist and perform' (Christensen, 1997), to drive newer methods for their acceptance by the emerging rules of market orientation. In the era of knowledge world, the customer imperative cannot be ignored and since the level of information to the customer has been steepened by the internet age, it amounts to more complexities in satisfying the vacillating needs of the customer, who unquestionably is the real king of the new market. 'Innovate or die' will be the mantra for all the leading companies, while each company shall engage in variety of techniques accomplishing the feats set there off. For many people, innovation is just about changes to existing products or services. This may be of incremental nature keeping in quality to the customer needs. It may not surprise them, which the radical or path breaking innovation would do. Incremental innovation is actually the form of the market. Radical innovations would be more fundamental in nature as they may go deeper into the 'skin' for conquering new ideas. Such innovations can disrupt industries and hence are referred as 'disruptive innovations'. At the same time, Drazin & Schoonhoven (1996), describe the effect of community and population on innovation.

An organisation engaged in innovation (Nelson, 1968) and launching them into the market place does not guarantee streamlined revenues at the same time. It is the orchestrated combination between the creation, selection and delivery of ideas, which matters most, while the firms engaged, assimilate the opportunities create new and continuously deliver competitive product(s)/service(s). As the new economy is brought in line to the old, the growing fragmentation by the global economy creates a distinctive environment and the firms have to live in this new paradigm; innovation hence becomes the imperative survival tool. Firms that are constantly engaged in exploiting their potential hence are compelled to the syndrome of 'innovate or abdicate' in a VUCA environment.

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