

## ENHANCING SUSTAINABLE DYNAMIC DIGITAL CAPABILITY USING STRATEGIC INTELLIGENCE THROUGH ARTIFICIAL INTELLIGENCE IN TECHNO-PRENEURSHIP

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### Abstract

The purpose of the paper is to study the drivers of digital start-ups and their sustainability factors. These factors influenced the outcomes of digital start-up using AI significantly during Covid 19 burnout, challenges, strategies and sustainable venture creation.

**Methodology:** The present study uses the empirical methodology by analyzing the entrepreneurs' data and allowing them to analyze external business environment for making the enterprises sustainable, including the various digital drives of the entrepreneur.

**Findings:** The study findings show that the entrepreneurs' digital drives including the degree of passion they have for creating and sustaining the vision, long term goals, and vision, mission and objectives (VMOG Model) of the enterprise can highly affect the outcomes of entrepreneurial sustainability. The study further shows that the leadership styles can also have great influence on how the ventures are created and sustained over the long periods of time.

**Implications:** The managerial and research implications include the entrepreneurs in this modern era undergo altogether different challenges from what their associates encountered only ten years before. With the flow of information globally, ICT, interlinked networks and economies have drastically altered the avenues offered to the entrepreneurs, problems encountered, and the ways of starting business startups digitally (Roberts, 2001). However, there is a gap in the research literature that suggests ways and means for entrepreneurs to deal

with the Covid burnout strategies and making their ventures sustainable no matter what, especially wrt to entrepreneurial passion and how that can help the nations to create more entrepreneurial environment.

Originality: The originality of the paper includes the factors that motivate entrepreneurial passion among all the entrepreneurs.

**Key words:** Sustainable Dynamic Digital Capability, Strategic Intelligence, International Entrepreneurial Ventures (IEVs)

## Introduction

A dynamic digital capability (DDC) is about the effective orchestration of exponential advancements in digital technologies, global digital platforms, Internet connectivity and global use of smart mobile devices to assist technical, production or marketing capabilities (Cahen and Borini, 2020). Such dynamic capabilities occur when firms deliberately invest in actions to orchestrate digital technologies, resources and skills combined with, and enhance, other organizational resources and capabilities (Bhardwaj, 2000) resulting in highly complementary digital sensing, seizing and reconfiguring capabilities deployment (Ruey-Jer and Kim, 2020). Furthermore, McLaughlin (2017) mentions program and project management as part of his dynamic technology capability model. Prioritizing which digital opportunities to turn into projects and evaluating ongoing projects requires routines to examine how the different initiatives fit the digital strategy and could contribute to an increasingly digital business model. According to Advisor Firm, prioritizing and evaluating digital activities in alignment with the digital strategy can create additional personal commitment among employees involved in the project. Developing a portfolio and clarifying which project has the highest priority would help to develop an overview that respondents feel is lacking at Energy Firm.

The scant DDC existing literature has described what could constitute the micro-foundations influencing DDC. For example, Cahen and Borini (2020) propose to study DDC through cross-cultural programming practices, virtual global networking activities and cross-border digital monetization adaptability. Nambisan et al. (2017) have associated DDC.

This research focuses to study the relationship between CE Determinants and their influence on digital entrepreneurial motivation and intention. Influence on motivation and intentions of the digital entrepreneurs and to evolve a model for digital entrepreneurship in the Indian Context. The need for firms to better align digital technology to their overall strategy is requiring firms to rethink how they view and implement technology in a way that builds a capability for the firm on a holistic level. Integrating digital technology in internal processes or customer offerings should not be a goal in itself. Digital transformation is a means to improve the business model and create better customer experiences (McLaughlin, 2017; Rogers, 2016).

## Literature Review

Corporate transformation is required to meet changes in the business environment over time (Tushman et al., 1986; Weick and Quinn, 1999) and may entail radical changes to both firm strategy and capabilities (Pearce and Robbins, 2008). The development of digital technologies over the past decades has been a major force reshaping business models in various industries (Bharadwaj et al., 2013; Liu et al., 2011), and countless firms express a need for digital transformation. Today, the opportunities for digital transformation are greater than ever, and there are more digital solutions on the market than ever before (McLaughlin, 2017; Parviainen et al., 2017). Warner and Weager (2019) highlight the need for more research on how firms digitally transform since this is a field with only limited empirical and conceptual studies.

Digital transformation in IEVs using AI to extract strategic intelligence based on data systems Verhoef et al. (2021, p. 889) who define digital transformation as “a change in how a firm employs digital technologies, to develop a new digital business model that helps to create and appropriate more value for the firm”. Liu et al. (2011) similarly emphasize that digital transformation is facilitated by digital technologies and carried out in order to attain competitive edge. Thus, digital technologies have an impact on the strategic development of firms, and there is a need for a digital transformation of firms to create competitive advantages, which requires thought through strategic processes (Aspara et al., 2013). The different departments at Energy Firm had different routines for keeping track of existing competencies, and there were no organization-wide routines for evaluating which types of competencies existed and which would be necessary for the near future. Therefore, a key requirement for a digital strategy is the ability to structure, manage and design integrating networks that provide complementary capabilities to those of the firm itself (Bhardwaj et al., 2013; Karimi and Walter, 2015).

Variables influencing the implementation of strategic intelligent systems in IEVs

### *AI driven Motivation for strategic intelligence*

The set of forces that initiate behavior and determine the structure, path, strength and time of this behavior, are called motivation. As per Ashley-Cotleur, King and Solomon (2009) there are various factors that act as a motivator for an individual to start his own venture. These factors are generalized as variables of demographics or outlook, principles or emotional factors. Kolvereid (1993) and Matthews and Moser (1995) found out that demographic variable played a role in influencing entrepreneurial activities. According to Crant (1996) men were found to have more inclination to start their own ventures as compared to women. Apart from this the background of the family can also be a motivating factor. Crant (1996) suggested that the intention to become an entrepreneur is also significantly influenced by the family that is entrepreneurial. Birley and Westhead (1994) also pointed out that having a role model also influences the entrepreneurial intention and entrepreneurial parents further act as a guide and mentor for the children to start their own venture. There have been many researches but very few of them that could be linked to the mindset that is entrepreneurial to variables. Ashley-Cotleur et al. (2009) states that the financial benefits in the form of salary and incentives act as external motivator for a budding entrepreneur. Intrinsic motivation is to do with satisfaction of being your own boss and not being dependent on others, taking the complete ownership of

success or failure of the venture. As per Benzing, Chu and McGee (2009) due to the dissimilar income levels and opportunities for employment in different countries the factors for motivation also varies for each country.

An individual's risk-taking capacity means his/her direction to take a chance in doubtful decision-making contexts. As indicated by Cantillion (1775) the most important determinant distinguishing an entrepreneur from salaried employees was his willingness to take the path of uncertainty and risk taking tendency. It is considered that entrepreneurs have a preference towards taking reasonable risks in condition where they have a certain extent of controlling risks or chance to make money. Another factor that turned out to be an important motivator was risk-taking capacity which emerged from McClelland's (1961) original research on entrepreneurs.

Schere (1982) argued that tolerance for ambiguity is essential attribute for entrepreneurs in light of the fact that the difficulties and capabilities for achievement connected with business new companies are eccentric by nature. Another motivational attribute that has gotten consideration is locus of control it is the confidence in the degree to which people trust that their activities or individual qualities influence results. People who have an outer locus of control trust that the result of a degree is out of their control, though people with an inner locus of control trust that their own behavior straight forwardly influences the result of an occasion (Rotter, 1966).

It has been observed that the majority of researches done on entrepreneurship motivation have focused on the impact of motivational factors on the intention towards entrepreneurship and very few researches have studied the outcome of entrepreneurship based upon the extent of the entrepreneurial intention (Gatewood, 1993; Manolova, Brush, and Edelman, 2008). However very few researchers have particularly studied that the degree of man's intention towards entrepreneurship can affect his or her desired results of entrepreneurship. The present literature on motivation for entrepreneurship requires large evidence which is cross-culture (Verheul, Stel, and Thurik, 2006). Liñán, Nabi, and Krueger (2013) explored students from Spain (a Latin European culture) and Britain (an Anglo-Saxon culture), and found that while individual states of mind strongly affect intention towards entrepreneurship in Spain, the perceived behavioral control will probably impact intention towards entrepreneurship in Britain. In another study, Liñán and Chen (2009) demonstrated that entrepreneurial intention motivation contrasted in Spain and Taiwan (a Confucian Asian culture).

Motivation, however, is dynamic as individuals motives keep changing with the every phase of life. Things that were started with a certain reason may continue now due to other reasons. The role and influence of goal has gained lot of importance in the studies relating to the entrepreneurial motivation (Locke and Latham, 2002). A lot of individuals have used the strategy of changing their goals and motivations in the varying conditions. As per Nuttin (1984) motivation normally is formed as per to the environmental context of a person. With the changing environmental factors an individual should be able to deal with and adapt to the new conditions by altering his motives.

Intention for implementing AI for strategic intelligence for enhancing IEV international performance

Bird and Jelinek (1988) additionally characterize the intentionality concept as: "A perspective, coordinating consideration, experience, and activity toward a particular item (objective) or pathway to its accomplishment. "Birds (1988) proposed that entrepreneurial intention is a condition of mind which focuses at starting new business, working on new business concept or aiming to bring new value within existing firms. It means readiness of individuals to carry out entrepreneurial behavior, to employ the entrepreneurial act, to be self-employed, or to launch new venture (Dell, 2008; Dhose and Walter, 2010). It normally requires guts, desire and the goal to be independent (Zain, Akram and Ghani, 2010). It is a vital determinant for establishing a new venture and has noteworthy influence on the success of the venture and its survival and growth. Hence, intention for entrepreneurship is linked with the interest of an individual to start an entrepreneurial work in the future (Davidson, 1995). Intention for entrepreneurship is the information search which can be used to form a firm (Wong and Choo, 2009). It is one of the important factors for creation of a new venture, supported by external factors like background of the family, position in one's family, occupation of the parents, education and training (Bird and Jelinek, 1988). It is normally the gut feeling, desire and need for an individual to be independent (Zain, Akram and Ghani, 2010). A person may have the required capability to become an entrepreneur but cannot be successful in starting his own venture till the time he has an intention to do so (Ismail et al., 2009). As per Krueger (2007) intention acts as a mediating factor between various external factors like personality traits, demographics, skills, social, cultural, financial support and entrepreneurial action. It was proposed that intention towards entrepreneurship explains the reasons as to why some people start their own venture even before scanning the business opportunity. Bird (1988) stated that intention is a condition of mind that moulds an individual's experience and action towards a particular objective or a goal in order to attain something. It stresses upon the factors that motivates a person to push their intentions into actions for starting up a firm.

There are two models that guide the entrepreneurial intentions: Ajzen's (1991) theory of planned behavior (TPB), and Shapero and Sokol's (1982) model of the entrepreneurial event (SEE). However, one of the fundamental driver models has been the TPB (Ajzen, 1991). As per this theory, people take the path of starting a new enterprise based on their apparent social standards, their own fascination towards business enterprise, and their apparent behavioral control (Ajzen, 1991).

Intention is the best predictor to set the behavior of entrepreneur- it is also the first step in order to understand and implement the process of entrepreneurship (Gelderen et al., 2008). Intention has strong influence to shape the entrepreneurial behavior. It is outcome of attitude toward behavior, subjective and social norms, and control over behavior and all these factors are important predictors of inclination and intention of student towards self-employment more importantly some external factors like education and personality traits can affect them (Souitaris et al., 2007; Pihie, 2009). There will be different reasons behind these students choosing entrepreneurship at some specific time. Moreover, entrepreneurial intention also

varies with the passage of time. Similarly, there are also some positive and negative factors responsible for this behavior (Linan et al., 2005).

Intention for entrepreneurship is “A conscious state of mind that directs attention (and therefore experience and action) toward a specific object (goal) or pathway to achieve it (means)” (Bird, 1989). Scholars have recognized education and training as important elements (Adenipekun, 2004; Uwameiye, 2006; Miettinen, 2006). What's more, this has turned out to be more noticeable among youngsters and students who are graduating. It represents a key source of naive entrepreneurs who may turn up either as intrapreneurs or as proprietors of their own venture or their privately-run companies (Thandi and Sharma, 2003; Kruegar, Reilly and Carsrud, 2000). The investigations of the Global Entrepreneurship Monitor (GEM) UK Report (2005) and Wilkinson (2005), affirmed that young people within the ages of 18-25 have the tendency of launching their own venture quickly after completing their graduation or within a time period of five years after they have graduated. Deciding how these intentions form one's behavior, Assagioli, (1973); Miller, Galnter and Pribram, (1960) concentrates on behavioral intentions throw more light on this.

The literature review has covered most of the terms related to the Entrepreneurship, digital entrepreneurship, intention towards entrepreneurship, Motivation, Attitude towards entrepreneurial behavior, Entrepreneurship Education, Role of Information Technology, Perceived Structural Support (PSS), Personality Traits. The review of literature leads to identification of the key determinants of digital entrepreneurship and digital entrepreneurship outcomes.

### **Organizational culture for adoption of AI for enhancing strategic intelligence for decisions making: Enhancing emotional intelligence of the systems using AI**

As early as sixteenth century, philosophers and writers were fascinated with the concept of passion (Vallerand et al., 2003). Aristotle, Rene Descartes, Spinoza and Hegel presented early views on what passion is. To some of the classicists, acceptable thought was derived from reason whereas unacceptable thought from passion, thereby regarding passion purely in a negative connotation implying suffering (Latin for *passio*). Another group argued for a more positive perspective of passion as positive emotions producing behavioral tendencies as long as reason underlie such behavior, (Vallerand et al., 2003; Cardon et al., 2009). Central to their conceptualization of passion is a deep sense of longing that impacts behavior whether positive or negative. Social psychologists were later interested in the concept (Barrett et al., 2007) and began to study it as a trait (Baum and Locke, 2004) and a motivational construct offering cognitive, affective and behavioral components where individuals do something they like (affective), something that is significant to their lives (cognitive) and something they spend time doing (behavioral) it on a regular basis (Shane et al., 2012; Baum and Locke, 2004; Vallerand et al., 2003; Johri et al., 2016; Drnovsek et al., 2016). Such studies covered mostly romantic relationships and passion for sports, arts, etc. (Chen et al., 2009). Baum and Locke (2004) championed the study of passion as a trait that individuals or entrepreneurs have that empower them to face challenges of uncertainty, resource shortages, surprises and rapid change. They argued that such individuals have stable traits across their life cycles. However, passion for an activity wanes over time casting doubt on the position of Baum and Locke,

which led to the conceptualization of passion as a domain specific motivational construct or an emotional experience in three broad perspectives: with respect to context of work (Perttula, 2004), context of activities (Vallerand et al., 2003) and context of entrepreneurship (Cardon et al., 2009). Perttula (2004) conceptualized passion as a

There are two sorts of firms utilizing this new Information Technologies nowadays. Conventional organizations which are the organizations with physical existence are utilizing the Internet as another circulation channel or on the other hand as a tool for expansion of their block and mortar business. Dotcoms organizations, Internet new companies or digital dealers (European Commission, 1997) are the ones that are especially incepted to work in this new environment. These online new businesses are currently tackling a significant part in the Internet, in spite of the fact that the mass needs to accomplish a lot more, and their commitment to the retailers and wholesalers deals is still not important (Serarols et al., 2005). A noteworthy change in web innovations have occurred which is replacing the conventional strategies. Web advancements give customers brisk and simple access to new data, services and information along efficiency advantages (Sawyer, Lee, and Allen, 2003). With the rapid rise of Internet advancements, clients hope to have a bigger need and desire on services that are web based (Wei Hin, 2004). So, startups based on the internet are becoming popular in current world of business especially among the youth.

Students doing a post graduate course normally have a higher mental maturity and have greater job experience due to which it is expected that they will have a higher inclination towards entrepreneurship as compared to other students. However, there are various challenges faced by these students like non availability of finances, apprehension of failing, and poor social networking. These issues hamper the inclinations of these students toward entrepreneurship. Furthermore the challenges encountered by these students who are doing their post graduation may be different from existing entrepreneurs. This research focuses to study the relationship between CE Determinants and their influence on digital entrepreneurial motivation and intention.

Wei-bin and Xiao-hui (2012) studied that with the usage and incorporation of Internet, the digital entrepreneurs have started to discover the world of internet and are using their creativity to take initiatives to explore their capabilities for online ventures. He suggested that an entrepreneurial climate can be created for the undergraduate students by a series of formal laws and informal institutional arrangements.

Digital entrepreneurship is a newly developed area in Malaysian business environment. The Malaysian government is supporting this initiative by introducing activities and information technology programmes for graduates to promote online business (Chan, 2004). Further it has been observed that for the undergraduates the digital entrepreneurship has played a very important role by providing them a platform to discover and earn an added income (Nizam, Arokiasamy and Hamidah, 2011).

Previous work done in this area suggests that this is still in emergent phase and there is vast gap which still needs to be explored, understood and ventured (Carrire, Raymond, and Eltaief, 2004).

Markets and firms are being continuously impacted with the tremendous growth of information technologies (IT). IT currently is influencing the globe in a rapid and massive way than any other technology (Carrier, Raymond and Eltaief, 2004). A new economy, where knowledge is the key tactical source, is forcing companies to change their traditional activities and take advantage of new tools to create new value. Furthermore internet is the most noteworthy tool impacting the world of business. As a trade infrastructure, the Internet has been considered as a platform where people can exchange information at a very fast rate (Schwartz, 1997). New innovations have empowered both new business vehicles and new types of organizations, while in the meantime have expanded the opportunity for everyone and anyone to start a global business with web access. Innovative contemplations and instruments, particularly online instruments have become a necessity for any new business startups (Paliulis et al., 2007). Particularly in the previous two decades mechanical business enterprise has gotten to be accepted worldwide (Friedman, 2007). Products and services online are quickly accessible to clients regardless of their topographical area and time zone.

Entrepreneurs' interest towards working for others is fading rather they are becoming more keen towards choosing self-employment as career option (Kolvereid, 1996). As per researches in the past it is suggested that the university graduate students have a lot of potential towards increasing initiatives for entrepreneurship (Kolbre, Piliste, and Venessar, 2005). Although, the students have the required knowledge but do not have the motivation needed to start a venture (Kolbre et al., 2005). These findings justify the requirement to study more on undergraduates specifically intentions towards using online platform for entrepreneurial initiatives. There is a need to foster positive attitudes towards entrepreneurship so as to increase the amount of entrepreneurial idea among under graduate students, assuming attitude as an important characteristic in entrepreneurship (Hannan, Hazlett, and Leitch, 2004). Therefore, there is a need for deeper understanding of activities of the students for adopting digital entrepreneurship. This research is focused on digital entrepreneurs as they have immense innovation capability and entrepreneurial skills that can help in flourishing new business (Fueglistaller et al., 2008).

The acceptance and eagerness to become an internet-based self-entrepreneur is termed as digital entrepreneurial interest. With the increasing number of students graduating, digital entrepreneurship as a career option will provide increased cost of living by giving an added source of income which in turn would help lower the rate of unemployment.

Among home based businesses, internet based (or digital) businesses are becoming increasingly popular. Internet companies are easy to start. For example, college courses sometimes require students to start an internet based business during the course of the semester (Daly, 2001).

Contrasted with business people in traditional commercial enterprises, for example, nourishment, eatery, retail, tourism, or assembling, IT business people are more learned,



innovative, and by and by systematic in their approach. They normally start organizations with their innovation abilities, IT skills, intellectual property (e.g., licenses and permitting), or new plans of action. In contrast with traditional business visionaries, IT business people have diverse behavioral qualities; their entrepreneurial conduct is very different and is related to their innovation aptitudes and convictions. However, the literature review showed that there are not many empirical researches in this regards. There is very limited information on technical factor and their influence on IT entrepreneurial behavior.

Nabi and Golden (2008) suggested that one of the solutions to overcome the unemployment issue was to encourage entrepreneurial activities among the graduates. Further the usage of online social networking could tremendously change the way business is being done traditionally and create new avenues for business (Shih, 2009; Baker and Green, 2008). The Malaysian government is supporting this endeavor by reinforcing the approach to create quality digital entrepreneurs who are at par with those global entrepreneurs (Baharuddin and Ariokiasamy, 2010). Hence, it is valuable to take up this issue in-depth.

The existing entrepreneurship literature pertaining to traditional firms studies some specific factors influencing the growth of new startups (Ballantine, Cleveland and Koeller, 1992; Lewis, Stanworth, and Gibb, 1984). As per this literature, there are two different ways to assess the growth of a new venture (Chandler and Hanks, 1993) (i) Measures which are objective, and (ii) Measures which are subjective. Furthermore, the characteristic of an entrepreneur is one of the variables considered significant for the success of start-ups, along with others factors that influence are market, strategy of the products, and the monetary aspects (Serarols-Tarrés et al., 2006). Though there have been lot of studies on entrepreneur characteristics (Morel, 1999; Sandberg and Hofer, 1987) however there are hardly any studies targeting on the attributes of the e-entrepreneurs specifically (Serarols-Tarrés et al., 2006).

Christian (2009) defined digital-entrepreneur as “an individual who creates a firm that is essentially found upon e-commerce, and whose main activities are based on the exploiting networks, using Internet, intranets and extranets”. Colombo and Delmastro (2001) suggested that there are few studies on comparison between the entrepreneurs from different sectors and dot.coms entrepreneurs, but there is hardly any research specifically pertaining to the factors that contribute towards the success of pure dot.coms i.e. the internet start-ups (Serarols-Tarrés et al., 2006).

Internet and related information technology has been used a lot in business education; particularly to encourage key learning objectives and help in the enhancement of vital skills needed by students (Granitz and Hugstad, 2004). With the active creation of a virtual venture, the internet has provided students with a platform to use their business skills and marketing concepts, but it also requires having an in depth knowledge of internet related skills to execute the business (Daly, 2001).

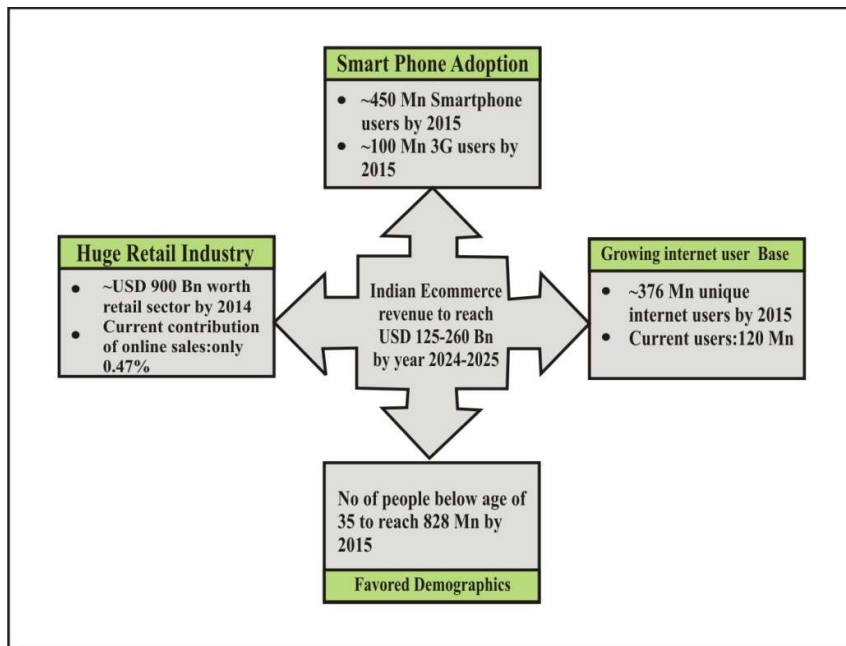
### **Scenario of Indian Industry**

Digital entrepreneurship is a latest source for the growth and development of the economy. There have been no studies in the Indian context digital entrepreneurship. It is in an emergent

phase in the India. Lot of young entrepreneurs are launching business online-Flipkart, Mayntra, Snapdeal, Mydala, Bakebox and many more. Studying the determinants of digital entrepreneurship will have a great impact on the economic growth as it provides a lot of opportunities on the internet to create employment for the self and the others. There is the need to study drivers of digital entrepreneurship which can be used for effective capacity building for the potential digital entrepreneurs.

### E-commerce

The Indian shops and traders have undergone a noticeable change in the last few years with the onset of e-commerce in India. E-commerce has revolution the world of retail and transformed the way of doing business of an entire generation of entrepreneurs. The e-commerce sector has grown three times in four years close to 12.6 billion USD in 2013 due to the new online ventures. The massive growth in the recent years has already seen a tremendous development of the biggest firms among these ventures past the billion-dollar territory. It is estimated that e-commerce projects will further rise five to seven times over the next four to five years. The e-commerce industry is one of the fastest growing sectors in the country today, spurring first generation entrepreneurs, large scale manufacturing by SMEs, jobs and most importantly impacting the infrastructure growth of the country.



**Figure1.1: Explosive growth of e-commerce in India**

Internet and Mobile Association of India in their report have exposed that India's e-commerce market expected to grow by 37% to reach USD 20 billion by 2015.

As per a report by Forrester 11 Research, e-business incomes in India will increase by more than five times by 2016, bouncing from USD 1.6 billion in 2012 to USD 8.8 billion in 2016.

## DIGITAL ENTREPRENEURSHIP

Wang and Lin (2016) in their study analyzed factors influencing internet entrepreneurship of the business school students. An integrated model for internet entrepreneur characteristics was proposed, based on Rogers' (1983) innovation diffusion theory, Ajzen's (1991) theory of planned behavior. The survey was rolled out for a total of 107 business school students. Multiple regression analysis was used to examine the research hypotheses. The result showed that compatibility, subjective norm, and perceived behavioral control had a significant impact on the internet entrepreneurship intention of business school students. The research findings gave an in-depth understanding on the intentions of business school students to become internet entrepreneurs.

Badaruddin, Moorthy, Mohamad, and Zin (2015) in their research highlighted different dimensions and terms used in entrepreneurship, particularly the different aspect of digital entrepreneurship. With the various concepts and terms covered in this study it is expected that the future research in this area will examine other concepts related to digital entrepreneurship. Digital entrepreneurship has become a global topic due to its noteworthy role in the performance of an economy of the country.

Bennani and Oumli (2014) identified factors promoting reception of e-entrepreneurship Morocco and suggested a model based on Technology Acceptance Model (Davis et al., 1989) with "Trust", "Image" and "Risk" added as the new constructs. The study was conducted in Agadir city, south of Morocco in national school of business and management. 56 students who were considered as future entrepreneurs were surveyed, representing 62% of the target population (90 students). It was analyzed that the e-entrepreneurship acceptance intention by these entrepreneurs in the proposed model explained 40% of total variance. It was also found that Perceived Usefulness, Perceived Ease of Use, Trust, Image and Risk positively impacted the future Moroccan entrepreneurs' intention to accept e-entrepreneurship. Though, it was found that attitude had a negative influence on this intention. Additionally, this study created a valuable understanding on e-entrepreneurship that can assist policymakers to make successful strategies related to information technology (IT), and help the upcoming entrepreneurs to be successful in ventures invested based on IT.

Taleghani, Ghafary, Keyhani, and Ahmadi (2013) suggested directions of internet-based entrepreneurship in Iran. The paper inspected and tried the identity qualities of web business people in Iran. Results demonstrate that, web business visionaries depend on eight attributes, including external control, risk intending, need to succeed and change, pragmatist, being tolerated, and intellectual health, having dreams, and looking for difficulties. In this examination these attributes analyzed under different hypotheses and test values and ranked utilizing Friedman Test. This paper gave a few bearings of web based business in Iran. As indicated by the results, variables specified can be used for further research and can be tried in different nations to test the validity of this study.

Badaruddin, Arokiasamy, Yusuf, Nordin and Zakaria (2012) endeavored to look at the start of digital entrepreneurial inclination among students doing their undergraduate courses in higher learning institutions in Malaysia. The primary point of this paper was to inspect the extent of

inclination of business students to start a digital entrepreneurial enterprise in Malaysia. The aftereffects of this examination implied that all the autonomous factors; for example, social background, general attitudes, entrepreneurial attitude and knowledge of information technology had a positive association with the dependent variable, digital entrepreneurial intention among business students from both open and private IHL. This study additionally highlighted that there is a distinction in digital entrepreneurial intention of students among amongst open and private IHL in Malaysia.

[Alaudeen](#) and Akbar (2012) proposed that there is a noteworthy association between perception of doing a business online and intention of doing a business online. The study was carried to look at the awareness of the youngsters towards online business enterprise and the association between awareness of the youngsters and their intention to do e-business. To create applicable information on online business for growing business ventures. The findings in this research recommend that there is huge association among awareness on internet business and intention to do internet business. However, the perception about the experience of shopping online and intention to do business online is not noteworthy and can't be an indicator in the model.

Aryanto (2012) explored the profile of the Indonesian entrepreneurs doing online business and their related tasks and also the profiles of e-learning entrepreneurship in Indonesia. The secondary data was used as the research method and the data was taken from Ministry of Communications and Information Technology in Indonesia. 1,280 companies spread throughout Indonesian cities such as Jakarta, Surabaya, Padang, Manado, Makassar, Yogyakarta, Pontianak, Ambon, Mataram, Samarinda, Batam, Denpasar, Medan, Bandung, Jayapura, and Semarang were the respondents for the study. Apart from this internet sites offering distance learning on online entrepreneurship were used, total of 2 websites were accounted. It was concluded that Indonesian entrepreneurs doing online business were emerging very fast due to the abundance of smart mobile phones. Facebook was amongst the top website to conduct business. Apart from this it was found that limited information and motivation was given to the online audiences by the online entrepreneur education in order to encourage entrepreneurship education in Indonesia.

Kiškis (2011) analyzed the specific features of entrepreneurship in digitalspace compared to basic models of entrepreneurship. A systemic, teleological, deontological and hermeneutic examination, restricted contextual analyses was used. The analysis proposed new characteristics of business enterprise in the internet and a novel approach that was expected to contemplate and comprehend it. Case studies specified in the paper were constrained regarding the extent of the paper and were instrumental for delineating diverse parts of business in the internet. The examination exhibited the hypothetical system for further investigation of the business in the digitalspace, and addition fundamental material for classroom use. Digitalspace as a distinct social phenomenon could be used to carry future research work. Direct and indirect impacts of the internet on the business startups were examined, alongside with the advanced transformation business models in digitalspace and novel value quality approach. This was among the principal investigations of enterprise in the internet as a particular social phenomenon. No comparative studies had been done in the Baltics some time recently, while the US and European management studies had been restricted to particular contextual

investigations, without exhibiting a general theoretical framework processes. He summed up that Digital traders had changed business in various ways during last two decades Internet and Communication Technologies, and particularly the internet innovations, had additionally altered the new venture startup process. The internet has encouraged the lean way to deal with new companies, likewise empowered passive and virtual new businesses. Examination of the key components and parts of the internet enterprise proposed that separate diverse inquiries are needed for the basic entrepreneurship and technological entrepreneurship in non-digital space related fields.

It is considerably not the same as the essential business premises and even from the innovative business enterprise in non-the internet related fields, along these lines merits separate experimental request.

Millman, Li, Matlay, and Wong (2010) studied factors that encourage Chinese students to start online business. He suggested that demographic variables such as gender, household incomes and student status had a positive impact towards the intentions of Chinese students to start their internet business. He suggested further research could be carried to identify the complete array of variables that influence the intentions of the student's to start an business based on internet in China.

Serarols (2009) analyzed the entrepreneurial process of a new firm's creation and shed some light on how this process was applied by digital entrepreneurs in starting their businesses based on a detailed, multiple cases of eight entrepreneurs in Spain. The findings of this study gave some insights about this new form of entrepreneurship (digital entrepreneurship) that is expected to become much more popular with the initiation of the new economy.

Matlay and Martin (2009) highlighted the rise and development of common strategies amongst small e-Businesses (Matlay and Westhead, 2005). A longitudinal case study of 24 e-Entrepreneur working virtually across pan-Europe was carried to see new cooperative and competitive strategies that the members lead and manage in small e-Businesses. Cooperative and competitive strategies of e-Businesses were recognized and associated outcomes were examined. He also added that during the last period of last 10 years or so, team-led entrepreneurship was a more profitable option to single founder entrepreneurship.

Hasan and Harris (2009) explored the relationship between entrepreneurship and innovation and investigate their role together in development of an organization in general and companies which operate online in particular. A review of principal literature in this field was carried out analysis of cases was done, web researches and interviews with dot.com companies. The finding of the study suggested that entrepreneurship and innovation are important factors for the lasting sustainability of e-commerce and e-business. And proposed entrepreneurship and innovation should be regarded as continuous, and a daily practice in organizations.

Sebora, Lee and Sukasame (2009) concentrated on the relationship between entrepreneurial attributes (accomplishment introduction, risk taking tendency, locus of control, factors of e-service business (reliability, responsiveness, usability, and self-service), support of the government and the development of e-trade entrepreneurs. It was found that the direction for achievement and locus of

control of originators and business accentuation on reliability and ease of use functions of e-service quality were unequivocally associated to the development of e-trade entrepreneurial endeavors in Thailand. Organizers tendency of risk taking and networking ability, responsiveness of e-service and self-service and support of the government were observed to be non-critical.

Serarols (2008) did an in-depth exploratory study of eight digital entrepreneurs. In his study he described the main socio-demographic aspects of the dotcom entrepreneur unanalyzed the entrepreneurial process of new firm's creation and finally shed some light on how this process was applied by digital entrepreneurs in starting their businesses. He explored the key social-demographic profile of the digital entrepreneur in Catalonia and their motivations to create new ventures. He further investigated the main stages of the entrepreneurial process of creating a new venture and understands the process of how these digital entrepreneurs create a new venture in the Internet. The results of this research threw some interesting light on a new entrepreneurial form (digital entrepreneurship). The most important contribution of the paper certainly lies in its observation of the digital entrepreneurship and the process that guides the creation of dotcom firms, and its proposed model incorporating the practices observed. It also contributes to some additional information on the socio-demographic profile of the digital entrepreneur.

Zhao (2007) explored key concerns and problems encountered in e-entrepreneurship and e-innovation through case studies. The major area of concern in relation to e-entrepreneurship and e-innovation today, as seen through the cases in this study was that there was a need for e business to look closely to the requirement of the market and achieve credibility from the market. One more core concern examined was that before starting the business there was a need to build credibility within the e-business marketplace. Also the inability to be able to touch and feel the online products and services needed to be taken care of in order to create brand awareness. The study gave the theoretical and practical insights and guidelines for the future discussion.

Profile of entrepreneurs (Age, Gender, Family Background, Educational level)

Gender: There have been a lot of early studies in the past that found motivation to become an entrepreneur are underlined by gender differences. Independence (Simpsons, 1991; Carter and Cannon, 1991), social goal persuasion (Hisrich and Brush, 1987); and. autonomy and flexibility (Sexton and Bowman-Upton, 1990) are often mentioned by women entrepreneurs as a necessity. Few women have felt the need to fulfill their economic goals but hardly the need for quick growth and huge profits (Morris et al., 2006). On the contrary the male entrepreneurs feel that gaining of economic goal like large profits and quick growth is a main motivation behind starting their own venture (DeMartino and Barbato, 2002). However Shane et al., (1991) suggested the reasons behind formation of new business across gender or national boundaries were not common. As per recent studies it is suggested that the female entrepreneurs are being faced by particular barriers and challenges which are significantly from the male entrepreneurs (Ahl, 2002; Bruni et al., 2005). In spite of increasing literature related to gender and entrepreneurship which is traditional, when we talk about the motivation and/or intention related to the business via internet very less is known about differences between male and female in relation to commencement of the online ventures (Millman et al., 2009).

**Age:** As per Cooper (1993), the success of the venture is linked to the entrepreneur's age. Lussier and Corman (1996) suggested that individuals who start their own venture at a young age are more likely to fail as compared to the older people. In the current age of computers and internet the basic knowledge of a startup venture and skills to adapt to the environment are needed by the young entrepreneurs. The online entrepreneurs are normally young in comparison to the other types of entrepreneur (Colombo and Delmastro, 2001). Age also plays a significant role in evaluating an individual's inclination to start a venture (Reynolds, 1995). It was seen that the inclination had been at peak at the age around 35 years old.

**Family background:** Family background of student also fosters the attitude and intention for entrepreneurship. There is considerable amount of literature is available about the role of family background on intention, and findings show that most of entrepreneurs come from mother or father business experience (Dyer, 1992; Crant, 1996). As, attitude to adopt entrepreneurship relates with learning and influence of external factors like demographic, cultural, social and financial assistance- previous exposure and experience of family business have influence to take on entrepreneurship (Krueger, 1993). Drennan et al. (2005) found that desirability and feasibility of venture creation increase with family business background. The students whose parents are self-employed show highest inclination to run their own business and lowest to do job. Students have family background of business and also familiar with real life business how positive relations to be an entrepreneur (Peterman and Kennedy, 2003; Kirkwood, 2007).

**Educational Level:** It is the most cited factors in the literature that plays a significant part in the growth of the new startup (Cressy, 1996; McDougall et al., 1992; Sandberg and Hofer, 1987; Stuart and Abetti, 1987). Education level can be related to understanding, skills, problem solving, obedience, motivation and self-confidence. All these provide the entrepreneur with the capability to face various problems, hence impacting the growth of the organization (Cooper et al., 1994). As per the prior studies there is a strong association between the success of an entrepreneurial venture and the education level of the entrepreneur (Magaña, 1998).

#### Attitude towards techno-entrepreneurship

In previous researches on factors influencing intention towards entrepreneurship, attitude towards entrepreneurship emerged as an important factor wherein, entrepreneurial attitude refers to the personal interest in becoming an entrepreneur (Lüthje and Franke, 2003; Schwarz et al., 2009; Ariff, Bidin, Sharif, Ahmad, 2010). Veciana, Aponte and Urbano (2005) found that the students' intention towards launching a new entrepreneurial venture has started to increase in Spain over last couple of years. As more and more students have an intention to start a new venture, they will have a greater interest to start business and are getting more open to taking risks. It was found that the individual characteristics had an indirect impact on the intention to start business, which was further influenced by the attitude of an individual towards entrepreneurship. In addition Ariff et al. (2010) found that in Malaysia the accounting students who wanted to become entrepreneur were influenced significantly by their attitude towards entrepreneurship. The study examined how the Malaysian undergraduate students appreciated their career path for digital entrepreneurship. Hence, the association between entrepreneurial attitude and intention towards digital entrepreneurship was

studied. We know from attitudes generally influences intended behavior to a certain level (Ajzen and Madden, 1986). In this context, it seems that students who had a higher intention to setup their own venture were the ones who were more inclined towards entrepreneurial career path. The possibility has been the level of entrepreneurial intention is higher if the students have a more favorable attitude towards being self-employed.

Techno-education for enhancing the strategic intelligence using AI

Education in entrepreneurship can be traced back as far as 1938, to Professor Emeritus Shigeru Fujii of Kobe University in Japan (McMullan and Long, 1987). The first entrepreneurship course was started at Harvard Business school in 1947, and another course was taught by Peter Drucker at New York University in 1953 (Brockhaus et al., 2001). It was only in 1990s the researchers, academicians, managers and policy makers began to find out the effectiveness of business and management education. Last decade has seen a tremendous growth in the number of entrepreneurship courses in universities across the globe.

Hills (1988) studied fifteen leading US entrepreneurship education programs and found that the main focus of most of these courses was to create awareness and understanding of the entrepreneurial process. Apart from this it aimed at making students aware with entrepreneurship as a career option so as to they could explore entrepreneurial opportunities. Further the entrepreneurial career theory (e.g. Kolvereid, 1996) highlighted the importance of recognizing entrepreneurship as a workable and lucrative career option for an individual to start an entrepreneurial venture. It has been found from previous studies that one can build upon the entrepreneurial skills and the attitudes of students towards entrepreneurship with the help of entrepreneurship courses (Gorman et al., 1997; Mitra and Matlay, 2004; Kuratko, 2005; Florin et al., 2007). It was also studied that entrepreneurship education and successful entrepreneurs as a role model also strongly impact the students in taking up an entrepreneurial career path (Kolvereid and Moen, 1997; Fayolle et al., 2006). Entrepreneurship education plays an important role in influencing the attitude and the behavior of the students towards entrepreneurship which in turn impacts the entrepreneurial aspiration and intentions of these students. Previous studies suggest that there is not much known about how different entrepreneurship programs affect the student behavior however it is seen that participation in such programs tend to increase the entrepreneurial awareness and inclination. Though Entrepreneurship education is just a choice given to the students, important is if they really have an entrepreneurial mindset or not. Students with a higher inclination towards starting their own venture are benefited more out of these courses as compared to the other students (Storey, 2000).

Perceived structural support for strategic implementation of technology and AI

In the current scenario of changing world the student's these days access the economic gain they would get by starting their own venture. They actually see the return on investments and the benefits they would get on taking the entrepreneurial path. Environment also is a significant factor of the entrepreneurial outcomes. Environmental factors help in facilitating the entrepreneurship activities and this influence the cost and benefits of the new venture (Ajzen and Madden, 1986). It also acts as an important factor in forming entrepreneurial intention of the students. Specifically striking are the perception of government policy. Among the environmental factors that affect students' entrepreneurial intentions are:

- a) It is difficult to get funding



- b) There are huge competition pressures on the startups
- c) Finding a business idea for a startup is really difficult
- d) Bank don't promptly offer credit to new businesses
- e) Subsidies that are available for new companies provided by government
- f) The bureaucratic techniques for establishing another organization
- g) Whether the entrepreneurs have an optimistic picture with the society
- h) Whether the course works at college encourage them well for independent work and support business startups

Intensity of competition and regulations of the environment are two factors related to the environmental context.

Intensity of competition is defined as "the degree that the company is affected by competitors in the market" (Zhu et al., 2004). Its impact on e-business integration may fluctuate as integration advances to a more profound stage. Competition will make companies first to start and accept innovations to keep up competitive edge. In a theoretical investigation of the key study of reasoning fundamental IT developments, Porter and Millar (1985) found that, by embracing information systems, firms may adjust the guidelines to face the competition, influence the business structure, and look for better approaches to beat rivals.

E-business application based on internet technologies play an important role in improving responsiveness of the market and transparency of the information (Zhu, 2004) of a firm by increasing efficiencies (Zhu and Kraemer, 2002) and achieve customer support (Shapiro and Varan, 1999). To maintain a competitive edge, it is imperative for a firm to take initiatives (Zhu and Kraemer, 2005).

Personality traits for adoption of technology driven AI systems enhancing strategic decision making and intelligent systems

Entrepreneurship has 3 kinds of personality traits linked to it. These are a) Willingness to take risks b) Locus of control c) Need for independence. The levels of entrepreneurial intentions differ depending upon the personalities of the students.

Entrepreneurs whether students, non-students, youthful or aged have distinguishing qualities required for completing effective entrepreneurial endeavors. These attributes may contrast contingent upon the researcher's interest. They incorporate wish for accomplishment (McClelland, 1961); locus of control (Rotter, 1966); risk taking propensity (Brockhaus, 1980); proactiveness (Miller, 1983); tolerance for ambiguity (Schere, 1982; Betaman and Grant, 1993) and inventiveness (Drucker, 1985). Different attributes as were distinguished by specialists for example Borland (1974); Timmons, (1978); Low and Macmillan (1988); Bartol and Martin (1998); Enwick and Langford (2000) incorporate aggressiveness, drive, and organization flexibility, impulsiveness, self-interestedness, leadership, skepticism and endurance (Buttner and Rosen, 1992; Luthje Franke, 2003); high tolerance for ambiguity (Bartol and Martin, 1998). These attributes have turned attention of many researches lately. Youth normally have

a unique identity. They respect the issues of quality, self-rule and autonomy and consider it imperative in their craving to become an entrepreneur (Bhandari, 2006). They see change as a chance to unleash their potential and will go to any extent to and take risk (Brockhaus, 1980). They have social aptitudes and have a harmony amongst their instinct and their thoughts (Reimer-Hild et al., 2005).

Personality plays a vital role in accessing the potential of an individual towards becoming an entrepreneur. As per Gartner (1988) individuals with a certain specific set of personality traits can be termed as entrepreneur. The various aspects of entrepreneurship like intention to start a venture, successful running of business and enhancement of corporate entrepreneurship can be predicted from the personality traits of an individual (Shaver and Scott, 1991). Personality factors have been concentrated by many researchers as of the lines of entrepreneurship. There have been a lot of studies on personality traits which has made it difficult to systematically compare these studies. Hence, there is a need for a universal measurement of personality as a factor (Singh and DeNoble, 2003). It is normally seen that individual with specific personality traits may be more attracted towards entrepreneurship activities and are inclined to the entrepreneurial opportunities. They would normally strive hard and for a longer duration to start their own venture and become an entrepreneur. Starting of the new venture needs exploration of the new ideas, creativity in solving the business problems and be innovative while framing strategies.

#### Intention to implement strategic intelligent systems

Bird and Jelinek (1988) additionally characterize the intentionality concept as: "A perspective, coordinating consideration, experience, and activity toward a particular item (objective) or pathway to its accomplishment. "Birds (1988) proposed that entrepreneurial intention is a condition of mind which focuses at starting new business, working on new business concept or aiming to bring new value within existing firms. It means readiness of individuals to carry out entrepreneurial behavior, to employ the entrepreneurial act, to be self-employed, or to launch new venture (Dell, 2008; Dhose and Walter, 2010). It normally requires guts, desire and the goal to be independent (Zain, Akram and Ghani, 2010). It is a vital determinant for establishing a new venture and has noteworthy influence on the success of the venture and its survival and growth. Hence, intention for entrepreneurship is linked with the interest of an individual to start an entrepreneurial work in the future (Davidson, 1995). Intention for entrepreneurship is the information search which can be used to form a firm (Wong and Choo, 2009). It is one of the important factors for creation of a new venture, supported by external factors like background of the family, position in one's family, occupation of the parents, education and training (Bird and Jelinek, 1988). It is normally the gut feeling, desire and need for an individual to be independent (Zain, Akram and Ghani, 2010). A person may have the required capability to become an entrepreneur but cannot be successful in starting his own venture till the time he has an intention to do so (Ismail et al., 2009). As per Krueger (2007) intention acts as a mediating factor between various external factors like personality traits, demographics, skills, social, cultural, financial support and entrepreneurial action. It was proposed that intention towards entrepreneurship explains the reasons as to why some people start their own venture even before scanning the business opportunity. Bird (1988) stated that intention is a condition of

mind that moulds an individual's experience and action towards a particular objective or a goal in order to attain something. It stresses upon the factors that motivates a person to push their intentions into actions for starting up a firm.

There are two models that guide the entrepreneurial intentions: Ajzen's (1991) theory of planned behavior (TPB), and Shapero and Sokol's (1982) model of the entrepreneurial event (SEE). However, one of the fundamental driver models has been the TPB (Ajzen, 1991). As per this theory, people take the path of starting a new enterprise based on their apparent social standards, their own fascination towards business enterprise, and their apparent behavioral control (Ajzen, 1991).

Intention is the best predictor to set the behavior of entrepreneur- it is also the first step in order to understand and implement the process of entrepreneurship (Gelderen et al., 2008). Intention has strong influence to shape the entrepreneurial behavior. It is outcome of attitude toward behavior, subjective and social norms, and control over behavior and all these factors are important predictors of inclination and intention of student towards self-employment more importantly some external factors like education and personality traits can affect them (Souitaris et al., 2007; Pihie, 2009). There will be different reasons behind these students choosing entrepreneurship at some specific time. Moreover, entrepreneurial intention also varies with the passage of time. Similarly, there are also some positive and negative factors responsible for this behavior (Linan et al., 2005).

Intention for entrepreneurship is "A conscious state of mind that directs attention (and therefore experience and action) toward a specific object (goal) or pathway to achieve it (means)" (Bird, 1989). Scholars have recognized education and training as important elements (Adenipekun, 2004; Uwameiye, 2006; Miettinen, 2006). What's more, this has turned out to be more noticeable among youngsters and students who are graduating. It represents a key source of naive entrepreneurs who may turn up either as intrapreneurs or as proprietors of their own venture or their privately-run companies (Thandi and Sharma, 2003; Kruegar, Reilly and Carsrud, 2000). The investigations of the Global Entrepreneurship Monitor (GEM) UK Report (2005) and Wilkinson (2005), affirmed that young people within the ages of 18-25 have the tendency of launching their own venture quickly after completing their graduation or within a time period of five years after they have graduated. Deciding how these intentions form one's behavior, Assagioli, (1973); Miller, Galnter and Pribram, (1960) concentrates on behavioral intentions throw more light on this.

#### Research methodology

##### *Entrepreneurial passion and adoption of techno-culture using technology adoption model (TAM)*

The set of forces that initiate behavior and determine the structure, path, strength and time of this behavior, are called motivation. As per Ashley-Cotleur, King and Solomon (2009) there are various factors that act as a motivator for an individual to start his own venture. These factors are generalized as variables of demographics or outlook, principles or emotional factors. Kolvereid (1993) and Matthews and Moser (1995) found out that demographic variable played a role in influencing entrepreneurial activities. According to Crant (1996) men were found to

have more inclination to start their own ventures as compared to women. Apart from this the background of the family can also be a motivating factor. Crant (1996) suggested that the intention to become an entrepreneur is also significantly influenced by the family that is entrepreneurial. Birley and Westhead (1994) also pointed out that having a role model also influences the entrepreneurial intention and entrepreneurial parents further act as a guide and mentor for the children to start their own venture. There have been many researches but very few of them that could be linked to the mindset that is entrepreneurial to variables. Ashley-Cotleur et al. (2009) state that the financial benefits in the form of salary and incentives act as external motivator for a budding entrepreneur. Intrinsic motivation is to do with satisfaction of being your own boss and not being dependent on others, taking the complete ownership of success or failure of the venture. As per Benzing, Chu and McGee (2009) due to the dissimilar income levels and opportunities for employment in different countries the factors for motivation also varies for each country.

An individual's risk-taking capacity means his/her direction to take a chance in doubtful decision-making contexts. As indicated by Cantillion (1775) the most important determinant distinguishing an entrepreneur from salaried employees was his willingness to take the path of uncertainty and risk taking tendency. It is considered that entrepreneurs have a preference towards taking reasonable risks in condition where they have a certain extent of controlling risks or chance to make money. Another factor that turned out to be an important motivator was risk-taking capacity which emerged from McClelland's (1961) original research on entrepreneurs.

Schere (1982) argued that tolerance for ambiguity is essential attribute for entrepreneurs in light of the fact that the difficulties and capabilities for achievement connected with business new companies are eccentric by nature. Another motivational attribute that has gotten consideration is locus of control it is the confidence in the degree to which people trust that their activities or individual qualities influence results. People who have an outer locus of control trust that the result of a degree is out of their control, though people with an inner locus of control trust that their own behavior straight forwardly influences the result of an occasion (Rotter, 1966).

It has been observed that the majority of researches done on entrepreneurship motivation have focused on the impact of motivational factors on the intention towards entrepreneurship and very few researches have studied the outcome of entrepreneurship based upon the extent of the entrepreneurial intention (Gatewood, 1993; Manolova, Brush, and Edelman, 2008). However very few researchers have particularly studied that the degree of man's intention towards entrepreneurship can affect his or her desired results of entrepreneurship. The present literature on motivation for entrepreneurship requires large evidence which is cross-culture (Verheul, Stel, and Thurik, 2006). Liñán, Nabi, and Krueger (2013) explored students from Spain (a Latin European culture) and Britain (an Anglo-Saxon culture), and found that while individual states of mind strongly affect intention towards entrepreneurship in Spain, the perceived behavioral control will probably impact intention towards entrepreneurship in Britain. In another study, Liñán and Chen (2009) demonstrated that entrepreneurial intention motivation contrasted in Spain and Taiwan (a Confucian Asian culture).

Motivation, however, is dynamic as individuals motives keep changing with the every phase of life. Things that were started with a certain reason may continue now due to other reasons. The role and influence of goal has gained lot of importance in the studies relating to the entrepreneurial motivation (Locke and Latham, 2002). A lot of individuals have used the strategy of changing their goals and motivations in the varying conditions. As per Nuttin (1984) motivation normally is formed as per to the environmental context of a person. With the changing environmental factors an individual should be able to deal with and adapt to the new conditions by altering his motives.

Does Digital entrepreneurship motivate you?

$H_1$  The gender influences digital entrepreneurship significantly.

$H_0$  The gender of the respondents is not significantly different from each other

From the output of one-way ANOVA the significance of F-test is found to be 0.000. This indicated that at 95% confidence level, F-test proves the age influences motivation for digital entrepreneurship significantly. In other words the age the respondents are significantly different from each other. So we reject the null hypothesis In terms of “Does Digital entrepreneurs motivate you?” the age of the respondents of different is not significantly different from each other and accept the alternate hypothesis that In terms of “Does Digital entrepreneurs motivate you?” the age of the respondents of different is significantly different from each other.

From the output of one-way ANOVA the significance of F-test is found to be 0.002. This indicated that at 98% confidence level, F-test proves the background is different. In other words the background the respondents are significantly different from each other. So we reject the null hypothesis In terms of “Does Digital entrepreneurs motivate you?” the background of the respondents of different is not significantly different from each other and accept the alternate hypothesis that In terms of “Does Digital entrepreneurs motivate you?” the background of the respondents of different is significantly different from each other.

From the output of one-way ANOVA the significance of F-test is found to be 0.000. This indicated that at 95% confidence level, F-test proves the Income of the respondent is different. In other words the income the respondents are significantly different from each other. So we reject the null hypothesis In terms of “Does Digital entrepreneurs motivate you?” the income of respondents of different is not significantly different from each other and accept the hypothesis that In terms of “Does Digital entrepreneurs motivate you?” the income of respondents of different is significantly different from each other.

From the output of one-way ANOVA the significance of F-test is found to be 0.000. This indicated that at 95% confidence level, F-test proves the education of respondents is different. In other words the education the respondents are significantly different from each other. So we reject the null hypothesis in terms of “Does Digital entrepreneurship motivate you?” the education of the respondents of different is not significantly different from each other and accept the alternate hypothesis that in terms of “Does Digital entrepreneurship motivate you?” the education of the respondents of different is significantly different from each other.

### **Data analysis**

With dynamic problem–solution practices and with activities to expand firms’ boundaries. Lenka et al. (2017) have related DDC with intelligence, connect and analytical digital practices. Glavas et al. (2017) consider organizational practices in using digital tools as the main

informing factors for DDC, such as the Internet (Reuber and Fischer, 2011), platforms and websites (Ruey-Jer and Kim, 2020), or social media (Alarcón et al., 2018). In the context of International Entrepreneurship (IE), it is widely acknowledged that DDC and digitalization can provide international entrepreneurial ventures (IEVs) with higher internationalization scope and speed by fostering their quicker adaptation to new, and rapidly changing, international market conditions (Hervé et al., 2020; Westerlund, 2020; Etemad, 2017). However, many questions can still emerge regarding the factors potentially enhancing DDC in the context of IEVs, especially for those firms not born in the *digital logic context*, and its role in successful product-service transition. Exploring how IEVs move towards a more digitalized business models warrants further research, especially in the post-COVID reality, which seems to increasingly demand further customer online integration in value-creation processes through innovation processes in digitally-based business (re)modelling (Holmes, 2020); Zahra, 2020).

On the other hand, the term *servitization* has become an accepted label for the process of becoming an increasingly service-focused business (Fliess and Lexutt, 2019). With its origins in the tendency of manufacturing firms to “offer fuller market packages or bundles of customer-focused combinations of goods, services, support, self-service, and knowledge” (Vandermerwe and Rada, 1988, p. 314). Currently, servitization delineates business model configurations to support the customer-related functions by offering customized and total solutions (Lenka et al., 2017). In particular, past studies have given significant focus to the transition toward more servitized business models and have broadly assumed that firms.

Teece (2007) describes the selection of enterprise boundaries as a micro foundation for the seizing capability. Digital transformation has a disruptive impact on value chain networks and business ecosystems. Therefore, a key requirement for a digital strategy is the ability to structure, manage and design integrating networks that provide complementary capabilities to those of the firm itself (Bharadwaj et al., 2013; Karimi and Walter, 2015). To conclude, firms going through digital transformation need routines to determine what to do in-house and what to outsource, based on an understanding of current competence in the organization and the necessity of the competence for the digital strategy.

Following a unidirectional transformational path along a product-to-service continuum (Lenka et al., 2017). This path starts with the offer of physical products, and led to offer product-service systems, solutions and smart PSS, which are based on cloud platforms and conceived as a multilayered technology aimed at covering the customer’s needs (Martín-Peña, et al. 2018). However, this process is being recognized to be largely iterative and context-specific (Brax and Visintin, 2017). In addition, Valtakoski (2017) have suggested that a service paradox does exist, which indicates that advancing in the process of servitization does not always yield the expected positive impact on organizational performance, and may even have a negative effect. Accordingly, different internal and external factors are expected to have key roles in helping international entrepreneurial firms to transit and move forward in the servitization process (Fliess and Lexutt, 2019), including digital capabilities (Kohtamäki et al., 2019). Digital

capabilities do not only contribute to the process of servitization, but can facilitate the interactions between the front- and back-office service activities (Jovanovic et al., 2019).

Kohtamäki et al. (2019, p.380) suggest “It is now time to shed light on the role of digitalization in servitization and let digitalization rewrite the servitization narrative”. However, the past literature does not point to a consensus on the critical drivers for a successful service transition research (see Fliess and Lexutt, 2019; Díaz-Garrido et al., 2018; Brax and Visintin, 2017 for comprehensive literature reviews). In addition, the fact that there are many different conceptualizations of what constitutes a service transition strategy, interferes with the applicability of obtaining results from one context to another. Therefore, it is pertinent to explore the factors that impact on the servitization process in the context of IEVS and the role of digitalization in between.

The purpose of this special issue is to shed new light on how international entrepreneurial ventures (IEVs) support customer demands and requirements in international markets by developing digitalized and/or servitized business models and their respective impacts on their international growth and performance. We invite researchers to submit conceptual and empirical papers on issues addressing digitalization and servitization in IEVs.

### Chi Square Test

**Table 1 Does Techno entrepreneurship motivate you? \* Household Income Cross Tabulation**

		Household Income				Total
		Less than 10,00,000	10,00,001-20,00,000	20,00,001-30,00,000	30,00,001-40,00,000	
Does Techno entrepreneurship motivate you?	Count	63	77	36	27	203
	% within Does Techno entrepreneurship motivate you?	31.00%	37.90%	17.70%	13.30%	100.00%
	% within Income	21.50%	31.80%	26.90%	18.20%	24.80%
	% of Total	7.70%	9.40%	4.40%	3.30%	24.80%
	Count	18	48	38	38	142
	% within Does Techno entrepreneurship motivate you?	12.70%	33.80%	26.80%	26.80%	100.00%
neutral	% within Income	6.10%	19.80%	28.40%	25.70%	17.40%

ENHANCING SUSTAINABLE DYNAMIC DIGITAL CAPABILITY USING STRATEGIC INTELLIGENCE  
THROUGH ARTIFICIAL INTELLIGENCE IN TECHNO-PRENEURSHIP

	% of Total	2.20%	5.90%	4.70%	4.70%	17.40%
somewhat	Count	50	57	32	69	208
	% within Does Techno entrepreneurship motivate you?	24.00%	27.40%	15.40%	33.20%	100.00%
	% within Income	17.10%	23.60%	23.90%	46.60%	25.50%
	% of Total	6.10%	7.00%	3.90%	8.40%	25.50%
very much	Count	162	60	28	14	264
	% within Does Techno entrepreneurship motivate you?	61.40%	22.70%	10.60%	5.30%	100.00%
	% within Income	55.30%	24.80%	20.90%	9.50%	32.30%
	% of Total	19.80%	7.30%	3.40%	1.70%	32.30%
Total	Count	293	242	134	148	817
	% within Does Techno entrepreneurship motivate you?	35.90%	29.60%	16.40%	18.10%	100.00%
	% within Income	100.00%	100.00%	100.00%	100.00%	100.00%
	% of Total	35.90%	29.60%	16.40%	18.10%	100.00%

From the table above we can see that there is an association between income and the techno entrepreneurship motivation. It shows that respondents' with the less household income are more motivated for techno entrepreneurship. There has been less motivation for techno entrepreneurship as the income increases this may be due to the fact that techno entrepreneurship requires less investment.



**Table 2: Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	162.200 <sup>a</sup>	9	.000
Likelihood Ratio	164.853	9	.000
Linear-by-Linear Association	31.782	1	.000
N of Valid Cases	817		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.29.

From the table 2 above, it has been found that the significant value is 0.000 which is less than 0.05 at 95% confidence level. But as the thumb rule the significant value has to be less than 0.05 at 95% confidence level. In this case, the small value of Pearson's Chi-square test states that there is a significant interrelationship between income and motivation for techno entrepreneurship. So at 95% confidence level  $100-95=5$  divided by 100 or 0.05 significant level, it is concluded that there is a significant interrelationship between income and motivation for techno entrepreneurship.

**Table 3 -Symmetric Measures**

	Value	Approx. Sig.
Nominal by Phi	.446	.000
Nominal Cramer's V	.257	.000
Contingency Coefficient	.407	.000
N of Valid Cases	817	

The contingency coefficient gives the measure of strength of the output. If the value is close to 0, there is less correlation between the two variables. However, if the range is between 0.5 and 1, there exist a strong correlation. From the table above, it can concluded that there is moderate correlation between the variables namely income and techno entrepreneurship.

**Table 4 Does Techno entrepreneurship motivate you? \* Gender Cross Tabulation**

				Gender		Total
				Male	Female	
Does Techno entrepreneurship motivate you?	not so much	Count		156	47	203
		% within Does Techno entrepreneurs motivate you?		76.8%	23.2%	100.0%
		% within Gender		25.2%	23.7%	24.8%
		% of Total		19.1%	5.8%	24.8%
	neutral	Count		96	46	142
		% within Does Techno entrepreneurs motivate you?		67.6%	32.4%	100.0%
		% within Gender		15.5%	23.2%	17.4%
		% of Total		11.8%	5.6%	17.4%
	somewhat	Count		151	57	208
		% within Does Techno entrepreneurs motivate you?		72.6%	27.4%	100.0%
		% within Gender		24.4%	28.8%	25.5%
		% of Total		18.5%	7.0%	25.5%
	very much	Count		216	48	264
		% within Does Techno entrepreneurs motivate you?		81.8%	18.2%	100.0%
		% within Gender		34.9%	24.2%	32.3%
		% of Total		26.4%	5.9%	32.3%
Total	Count		619	198	817	
	% within Does Techno entrepreneurs motivate you?		75.8%	24.2%	100.0%	
	% within Gender		100.0%	100.0%	100.0%	
	% of Total		75.8%	24.2%	100.0%	

From the table above we can see that there is an association between gender and the techno entrepreneurship motivation. It has been found that male respondents are more motivated for techno entrepreneurship as compared to female respondents.

**Table 5 Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.684 <sup>a</sup>	3	.009
Likelihood Ratio	11.673	3	.009
Linear-by-Linear Association	2.610	1	.106
N of Valid Cases	817		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.41.

From the table above, it has been found that the significant value is 0.009 which is less than 0.05 at 95% confidence level. But as the thumb rule the significant value has to be less than 0.05 at 95% confidence level. In this case, the small value of Pearson's Chi-square test states that there is a significant interrelationship between gender and motivation for techno entrepreneurship. So at 95% confidence level  $100-95=5$  divided by 100 or 0.05 significant level, it is concluded that there is a significant interrelationship between gender and motivation for techno entrepreneurship.

**Table 6 Symmetric Measures**

	Value	Approx. Sig.
Nominal by Phi	.120	.009
Nominal Cramer's V	.120	.009
Contingency Coefficient	.119	.009
N of Valid Cases	817	

The contingency coefficient gives the measure of strength of the output. If the value is close to 0, there is less correlation between the two variables. However, if the range is between 0.5 and 1, there exist a strong correlation. From the table above, it can concluded that there is less correlation between the variables namely gender and motivation for techno entrepreneurship.

**Table 6: Does Techno entrepreneurship motivate you? \* Age Cross tabulation**

			Age					Total
			less than 21	22-23	24-25	25-26	more than 27	
Does Techno entrepreneurship motivate you?	not so much	Count	18	64	101	18	2	203
		% within	8.9%	31.5%	49.8%	8.9%	1.0%	100.0%
		Does Techno entrepreneurship motivate you?						
		% within Age	15.0%	32.2%	28.5%	23.1%	3.0%	24.8%
		% of Total	2.2%	7.8%	12.4%	2.2%	.2%	24.8%
neutral		Count	14	50	40	22	16	142
		% within	9.9%	35.2%	28.2%	15.5%	11.3%	100.0%
		Does Techno entrepreneurship motivate you?						
		% within Age	11.7%	25.1%	11.3%	28.2%	24.2%	17.4%
		% of Total	1.7%	6.1%	4.9%	2.7%	2.0%	17.4%
somewhat		Count	30	47	51	34	46	208
		% within	14.4%	22.6%	24.5%	16.3%	22.1%	100.0%
		Does Techno entrepreneurship motivate you?						
		% within Age	25.0%	23.6%	14.4%	43.6%	69.7%	25.5%
		% of Total	3.7%	5.8%	6.2%	4.2%	5.6%	25.5%
very much		Count	58	38	162	4	2	264
		% within	22.0%	14.4%	61.4%	1.5%	.8%	100.0%
		Does Techno entrepreneurship motivate you?						
		% within Age	48.3%	19.1%	45.8%	5.1%	3.0%	32.3%
		% of Total	7.1%	4.7%	19.8%	.5%	.2%	32.3%

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Total	Count	120	199	354	78	66	817
	% within Does Techno entrepreneurs motivate you?	14.7%	24.4%	43.3%	9.5%	8.1%	100.0%
	% within Age	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	14.7%	24.4%	43.3%	9.5%	8.1%	100.0%

From the table above we can see that there is an association between age and the techno entrepreneurship motivation. It has been found that respondents are more motivated for techno entrepreneurship within the age group of 24-25 than other age groups and there has been less motivation for techno entrepreneurship in the income group of above 27 this may be due to the fact people at this age are usually settled with a job or their own venture.

**Table 7: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	200.867 <sup>a</sup>	12	.000
Likelihood Ratio	213.181	12	.000
Linear-by-Linear Association	1.585	1	.208
N of Valid Cases	817		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.47.

From the table above, it has been found that the significant value is 0.000 which is less than 0.05 at 95% confidence level. But as the thumb rule the significant value has to be less than 0.05 at 95% confidence level. In this case, the small value of Pearson's Chi-square test states that there is a significant interrelationship between age and techno entrepreneurship. So at 95% confidence level  $100-95=5$  divided by 100 or 0.05 significant level, it is concluded that there is a significant interrelationship between age and techno entrepreneurship.

**Table 4.14 Symmetric Measures**

	Value	Approx. Sig.
Nominal by Phi	.496	.000
Nominal Cramer's V	.286	.000
Contingency Coefficient	.444	.000
N of Valid Cases	817	

The contingency coefficient gives the measure of strength of the output. If the value is close to 0, there is less correlation between the two variables. However, if the range is between 0.5 and 1, there exist a strong correlation. From the table above, it can concluded that there is moderate correlation between the variables namely age and motivation for techno entrepreneurship.

**Table 7: Does Techno entrepreneurship motivate you? \* Educational qualification**  
**Crosstab**

		Educational qualification				Total
		MBA	MCA	Post- graduatio n	Other	
Does Techno entrepreneu rs motivate you?	Count	81	73	35	14	203
	% within Does Techno entrepreneu rs motivate you?	39.90%	36.00%	17.20%	6.90%	100.00 %
	% within Educational qualificatio n	26.70%	27.90%	16.70%	32.60%	24.80%
	% of Total	9.90%	8.90%	4.30%	1.70%	24.80%
Neutral	Count	34	54	44	10	142
	% within Does Techno entrepreneu rs motivate you?	23.90%	38.00%	31.00%	7.00%	100.00 %

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		% within Educational qualification	11.20%	20.60%	21.10%	23.30%	17.40%
		% of Total	4.20%	6.60%	5.40%	1.20%	17.40%
		Count	18	83	96	11	208
		% within Does Techno entrepreneurs motivate you?	8.70%	39.90%	46.20%	5.30%	100.00 %
	somewhat	% within Educational qualification	5.90%	31.70%	45.90%	25.60%	25.50%
		% of Total	2.20%	10.20%	11.80%	1.30%	25.50%
		Count	170	52	34	8	264
		% within Does Techno entrepreneurs motivate you?	64.40%	19.70%	12.90%	3.00%	100.00 %
	very much	% within Educational qualification	56.10%	19.80%	16.30%	18.60%	32.30%
		% of Total	20.80%	6.40%	4.20%	1.00%	32.30%
Total		Count	303	262	209	43	817

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% within Does Techno entrepreneurs motivate you?	37.10%	32.10%	25.60%	5.30%	100.00%
% within Educational qualification	100.00%	100.00%	100.00%	100.00%	100.00%
% of Total	37.10%	32.10%	25.60%	5.30%	100.00%

From the table it has been found that there is an association between educational background and the techno entrepreneurship motivation. It has been found that respondents are more motivated for techno entrepreneurship with the MBA and MCA background than other groups. There has been more motivation for techno entrepreneurship among business and computer management students may be due to that fact that entrepreneurship course is taught in both these streams.

**Table 8: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	187.172 <sup>a</sup>	9	.000
Likelihood Ratio	198.580	9	.000
Linear-by-Linear Association	14.537	1	.000
N of Valid Cases	817		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.47.

From the table above, it has been found that the significant value is 0.000 which is less than 0.05 at 95% confidence level. But as the thumb rule the significant value has to be less than 0.05 at 95% confidence level. In this case, the small value of Pearson's Chi-square test states that there is a significant interrelationship between education qualification and techno entrepreneurship. So at 95% confidence level  $100-95=5$  divided by 100 or 0.05 significant level, it is concluded that there is a significant interrelationship between education qualification and motivation for techno entrepreneurship.

**Factor: Role of Information Technology**

The fourth factor with the Total Variance Explained value, 9.046% has been interpreted as *Role of Information Technology* due to its inclusion of scale items identified and adapted from



academic literature surrounding motivation towards Cyber entrepreneurship relating to *Role of Information Technology*.

**Table 8: Summary of Rotated Component Matrix, Cronbach's Alpha and Variance**

<b>Factor No 4: Role of IT</b>		<b>% of Variance Explained</b>		
<b>Items</b>	<b>Factor Loadings</b>	<b>Extraction Sums of Squared Loadings</b>	<b>Rotation Sums of Squared Loadings</b>	<b>Cronbach's Alpha</b>
IT Courses help in launching online business	0.783	4.909	9.046	0.839
Training Program in ICT & Entrepreneurship will help me to launch my online business	0.731			
Information communication technology (ICT) courses have helped me to develop my communication skills.	0.659			
I believe that IT Knowledge is an added advantage in taking a cyber entrepreneurial path	0.627			
IT courses have helped me to develop the ability to plan and organize my day-to-day work	0.578			

**Factor: Perceived Structural Support**

The fifth factor with the Total Variance Explained value, 6.379% has been interpreted as *Perceived Structural Support* due to its inclusion of scale items identified and adapted from academic literature surrounding motivation towards Cyber entrepreneurship relating to *Perceived Structural Support*.

**Table 9 : Summary of Rotated Component Matrix, Cronbach's Alpha and Variance**

<b>Factor: Perceived Structural Support</b>		<b>% of Variance Explained</b>		
<b>Items</b>	<b>Factor Loadings</b>	<b>Extraction Sums of Squared Loadings</b>	<b>Rotation Sums of Squared Loadings</b>	<b>Cronbach's Alpha</b>
Indian economy provides many opportunities for Cyber entrepreneurs	0.759	4.033	6.379	0.837
Cyber Entrepreneurs are encouraged by a structural system including private organizations	0.746			

Cyber Entrepreneurs are encouraged by a structural system including non-governmental organizations	0.732			
Taking loans from banks is quite difficult for entrepreneurs in India	0.719			

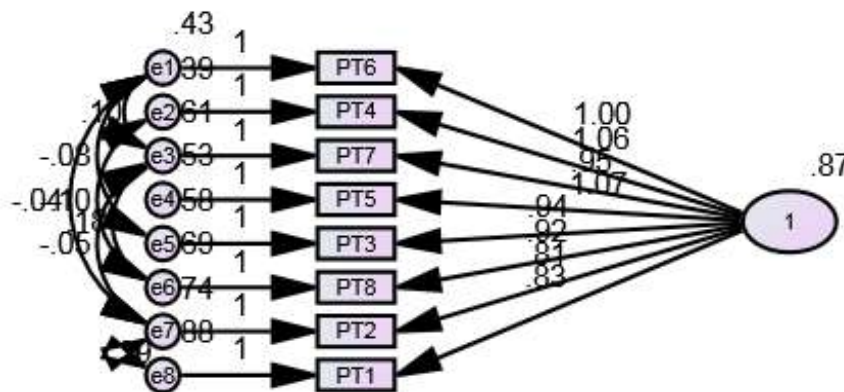
#### Factor: Attitude towards techno-entrepreneurship

The sixth factor with the Total Variance Explained value, 5.883% has been interpreted as *Attitude towards entrepreneurship* due to its inclusion of scale items identified and adapted from academic literature surrounding motivation towards Cyber entrepreneurship relating to *Attitude towards entrepreneurship*.

**Table 10: Summary of Rotated Component Matrix, Cronbach's Alpha and Variance**

Factor No 6: Attitude towards entrepreneurship		% of Variance Explained		
		Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings	
Items	Factor Loadings			Cronbach's Alpha
If I had the opportunity and resources, I would like to start an Online firm.	0.794	3.575	5.883	0.779
I believe that if I were to start my online business, I will certainly be successful.	0.771			
A career as Cyber entrepreneur is attractive for me.	0.746			
I would rather be my own boss than have a secure job.	0.585			

#### Personality Traits



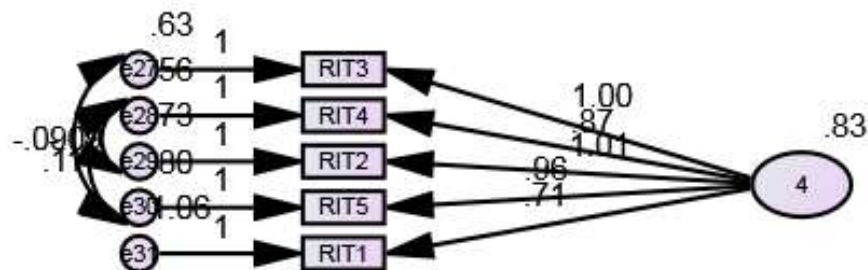
**Figure 4.2-Personality Traits and its measured variables**

In the above figure, *Personality Trait* is the latent construct having 8 measured variables. The degree to which each of these measured variables is related to latent construct is represented by the variable's loadings or standardized estimates. Since a measured variable doesn't explain the latent variable perfectly, an error term is added. The eight unidirectional arrows leading from PT to each of the eight observed variables suggest that these score values are each influenced by the respective underlying factor. As such, these path coefficients represent the magnitude of expected change in the observed variables for every change in the related latent variable (or factor). Here the connotation for the following terms is as:

- PT1** -I have mental maturity to be a Cyber entrepreneur
- PT2**-I have leadership skills that are needed to be a cyber entrepreneur
- PT3**-I have problem solving skills to be a Cyber entrepreneur
- PT4**-I have Communication skills that are needed to be an Cyber entrepreneur
- PT5**-I believe Risk-taking is a positive trait
- PT6**-I have creativity needed to be an Cyber entrepreneur
- PT7**-I'm willing to take substantial risks for substantial returns
- PT8**-I like to try new things. (e.g. exotic food or going to new places)

The construct "Personality trait" with overall value of 0.87 is included in the validated model of cyber entrepreneurship. The items including PT6 (1.00), PT4 (1.06), PT7 (0.95), PT3 (0.94), PT5 (1.07), PT8 (0.92) PT2 (0.81) and PT1 (0.83) have all been included in the validated model of cyber entrepreneurship as suggested in conceptual model. Error associated with observed variables represents measurement error, which reflects on their adequacy in measuring the related underlying factor (Personality Trait). Measurement error derives from two sources: random measurement error (in the psychometric sense) and error uniqueness, a term used to describe error variance arising from some characteristic that is considered to be specific (or unique) to a particular indicator variable. Such error often represents nonrandom (or systematic) measurement error. Error6 (0.43) associated with observed variable PT6, Error4 (.39) associated with observed variable PT4, Error7 (.61) associated with observed variable PT7, Error5 (.53) associated with observed variable PT5, Error3 (.58) associated with observed variable PT3 (0.94), Error8 (.69) associated with observed variable PT8, Error2 (.74) associated with observed variable PT2 and Error1 (.88) associated with observed variable PT1 represents measurement error.

#### Role of Information Technology



**Figure 4.5- Role of Information Technology and its measured variables**

In the above figure, *Role of Information Technology* is the latent construct having 5 measured variables. The degree to which each of these measured variables is related to latent construct is represented by the variable's loadings or standardized estimates. Since a measured variable doesn't explain the latent variable perfectly, an error term is added. Here the connotation for the following terms is as:

The construct "*Role of Information Technology*" with overall value of 0.83 is included in the validated model of cyber entrepreneurship. The items including RIT3 (1.00), RIT4 (.87), RIT2 (1.01), RIT5 (.96), and RIT1(.71) have all been included in the validated model of cyber entrepreneurship as suggested in conceptual model. Error associated with observed variables represents measurement error, which reflects on their adequacy in measuring the related underlying factor (Role of Information Technology). Measurement error derives from two sources: random measurement error (in the psychometric sense) and error uniqueness, a term used to describe error variance arising from some characteristic that is considered to be specific (or unique) to a particular indicator variable. Such error often represents nonrandom (or systematic) measurement error. Error27 (0.63) associated with observed variable RIT3, Error28 (.56) associated with observed variable RIT4, Error29 (.73) associated with observed variable RIT2, Error30 (.80) associated with observed variable RIT5, Error31 (1.06) associated with observed variable RIT1, represents measurement error.

#### Conclusions

In the present study, a comprehensive two-stage analysis was used. The measurement model was first confirmed using CFA, and then SEM was performed based on the measurement model to estimate the fit of the hypothesised model to the data. The CFA 1st order analysis of cyber entrepreneurial measurement model was carried out to confirm that the five dimensions (Attitude, education, Role of IT, Perceived Structural support ,Personality trait ) which are the determinants of cyber entrepreneurship are significant constructs to measure the endogenous variable. The measurement model which specifies and tests the relationship between the observed measures, and their underlying constructs provides a confirmatory assessment of construct validity (Bentler 1978). The direct causal relationship among the latent constructs as posited by the theory (Anderson & Gerbing 1988) was conducted. The confirmatory analysis of each dimension was carried out to confirm the items.

The next procedure was drawing the 2nd order of the seven dimensions of entrepreneurial intentions which is the fundamental contribution of the present study. The results of the path analysis indicates a significant positive relationship between cyber entrepreneurship motivation and cyber entrepreneurial intentions ( $P=0.000$ ). The indirect relationship between determinants through the mediating variable, cyber entrepreneurial motivation is  $P=0.103(P<0.05)$ , shows a positive relationship.

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