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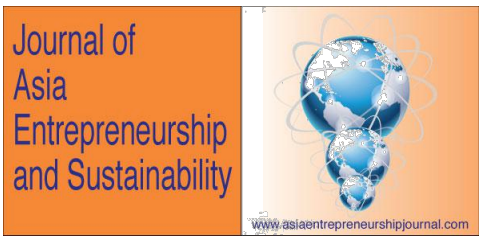

Table of Content

Volume XI, Issue 4, October 2015

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Textile and Fabric Design: A Panacea for Wealth Creation

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ABSTRACT

It is no longer strange to hear that many Nigerians are still battling with the problem of wealth creation. The objective of this study is to examine the level of unemployment in the country today vis-a-vis the role of textile and fabric design skills in wealth creation. The paper adopts a qualitative technique to examine the relationship between unemployment rate and wealth creation through textile and fabrics. The findings revealed that unemployment in Nigeria has reached an endemic state. The study therefore recommends that an enabling environment should be provided for the promotion of textile and fabric design products in Nigeria by all tiers of Government. Also, managerial and technical research institutes should be put in place by the government as it will be of immense benefit.

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School leavers are encouraged to launch into the deep ocean of untapped business opportunities in textiles and fabric designs and Nigerians should be encouraged to buy and use made in Nigeria goods.

INTRODUCTION

In Nigeria today, wealth creation through entrepreneurial skills remain one of the utmost considerations for the nation's progress and developments. The terms; wealth creation and entrepreneurship are very crucial to the survival of any nation that desire to grow and overcome the twin evil of poverty and unemployment. "Entrepreneurship is the ability of an individual businessman with special qualities and attributes to seek out a business opportunity in an environment, establish it and successfully run that business" (Igboyi, 2012).

Entrepreneurs play very strategic and important roles in the development of the economy of any nation. Hisrich and Peters (2002), see an entrepreneur as a person who searches for change, who responds to the change and who exploits the change as an opportunity. They see an entrepreneur as someone who is proactive, unassuming and ready to move at the slightest opportunity, who pursues the opportunity and who brings together all factors of production to make profit. Textile and fabric design as a means of creating wealth cannot be overestimated as it remains an unexploited area of skills acquisition which is capable of curbing unemployment in Nigeria. Entrepreneurial skills have been variously referred to as a 'source of employment generation'. Studies have equally revealed that there is a

positive relationship between stimulation of economic growth; employment generation; and employment of disadvantaged segment of the population, which include women and the poor (Oluremi and Gbenga, 2011; Renynold, 2007). Nigeria as a nation is endowed with several business and investment opportunities, due to the abundant, vibrant and dynamic human and natural resource; in spite of this, the country is still one of the poorest nations in the world and it has one of the highest rates of youth unemployment in Sub-Sahara Africa (Agbeze, 2012).

Unemployment is a global trend, but it occurs mostly in developing countries of the world with attendant social, economic, political and psychological consequences. It describes the condition of people who are without jobs. Anyawu and Oaikhenan (1995), define unemployment around the distiction between 'voluntary and involuntary unemployment. Voluntary unemployment is said to occur when persons choose not to work or accept job for which they are qualified at the going wage rate and condition, probably because they have means of support other than employment. On the other hand, involuntary unemployment exists when person cannot obtain work, even if they are willing to accept lower real wages of poorer conditions than similar qualified worker who are currently employed. Unemployment and underemployment reflect the failure to judiciously employ the important factor of production that is labour, to foster economic growth. Low returns to labour as well as high unemployment indicates poverty (Aiyedogbon & Ohwofasa, 2012). Unemployment has also been categorised as one of the serious impediments to social progress. Apart from representing a colossal waste of a

country's manpower resources, unemployment could easily lead to loss of welfare in terms of reduced output thereby leading, to reduced income.

Although, different money spinning entrepreneurial skills are available in Nigeria, some of these skills have saturated the society due to high influx of Nigerians who are daily venturing into them. Unknown to them, textile, which is one of the basic necessities of life, is needed by everybody. Hence, acquiring skills in this area is capable of changing the fortunes of Nigerian youth in particular and Nigerians in general.

Consequently, this paper examines the issues of unemployment and how entrepreneurial skills acquisition in textile and fabric design serves as a panacea to wealth creation.

UNEMPLOYMENT IN NIGERIA

Unemployment is a global trend, but it occurs mostly in developing countries of the world. ILO (2007) reveals that the proportion of the world unemployment has been steadily increasing and that the number of those without jobs remained at an all high of more than one 195 million or 6.3% in 2007. National Bureau of Statistics (NBS) put the rate of unemployment in Nigeria at 23.9% in 2011 while unbanned unemployment was at 29.5% in 2013. A report by Obinna (2014) equally predicted that the rate of unemployment in Nigeria is expected to increase further by about 2% in2014. According to Obinna (2014),

over 1 million unemployed youths are steadily applying for jobs where less than five thousand (5000) people are needed. He further posits that the country is in the verge of revolution which undoubtedly will be triggered by this terrible economic menace called unemployment. In spite of the claim by the government to have created 1.6 million jobs in 2013, the menace of employment unabatedly soars in Nigeria. One is tempted to doubt the genuity of the government.

Records from the National Population Commission (2001) indicate that youths under the age of 30 constitute over half of the approximately 150 million Nigerians. This portends a great danger for the country as this large number of youth can be a willing tool in the hands of politicians. Unemployment rate in Nigeria is growing at 16% yearly with the youth accounting for three times the general unemployment (Salami 2013). There is no gainsaying therefore that unemployment causes poverty, youth restiveness, gangsterism, robbery, kidnapping and other social vices being witnessed in Nigeria.

Unemployment in Nigeria remains a time bomb, and if not nipped at the bud, may plunge Nigeria into a crisis prone society. However, entrepreneurial skills also remain a timely intervention that can mitigate the effects of high unemployment through wealth creation.

CONCEPT OF ENTREPRENEURSHIP

Defining entrepreneurship is not an easy task as many scholars view the concept differently. Sternfioff and Burgers (1993) view entrepreneurship as the ability to develop a new venture or apply a new approach to an old business. Awe and Ayeni (2008), posit that entrepreneurship is the creation of new enterprises to meet new challenges and opportunities presented by a given situation. They further define it as a process of bearing a non – insurable risk as to achieve business objectives. In the opinion of Igboyi (2012), entrepreneurship is the ability of an individual businessman with special qualities and attributes to seek out a business opportunity in an environment, establish it and successfully run that business venture. The definitions of entrepreneurship are limitless but for the purpose of this paper, we adopted the definition of the concept given by Awe and Ayeni (2008). Awe (2006), identifies entrepreneurs as key element in capitalisation for undertaking activities in the expectation that it will yield gain in the future. In line with this assertion, Entrepreneurs are people who are able to see and scrutinise business opportunities in order to gather vital resources to take advantage of it and ensure success.

Theoretical Framework

This paper adopted the theory of entrepreneurship propounded by Joseph Alois Schumpeter, an Austrian Economist. He sees the roles of entrepreneurs as 'creative destruction', which occurs when new innovation renders old ideas and technology obsolete. An important function of the entrepreneur is **innovation.** The concept in the Schumpeterian tradition involves the introduction of a new good, the

development of a new method of production, the opening of a new market, the acquisition of a new source of supply of raw materials or intermediate manufactured goods or the carrying out of a new organisation of an industry. The special place of innovation, especially in the rural setting, is that its introduction by the entrepreneur brings about new production function, which enables the economy to achieve a higher equilibrium level. Thus, innovation enables the entrepreneur to achieve a higher equilibrium level of productivity which was previously the case. (Inegbenebor and Iredia 1995).

In conformity with Schumpter's theory, Allawadi (2010), ties entrepreneurship to the creation of five basic new combination of introducing a new product, a new of production opening, a new market, conquest of new source of supply and creating a new organisation. Salami (2013) believes that entrepreneurs have better chances of perceiving opportunities that are very illusive or difficult for other business managers to perceive. He concluded that entrepreneurship is the process of carefully determining and analysing unmet needs through creatively satisfying those needs by bearing the related risks. Hence, entrepreneurs are risk bearers, coordinators, organisers, gap-fillers, leaders and innovators. They must be able to predict the future with a degree of certainty on the business performance. Entrepreneurs' ability to increase productivity through vocational and other forms of innovation cannot be underestimated. In relating Schumpter's theory of creative destruction, acquiring skills in textile and fabric product is capable of creating job

opportunities and other side destroy the monster called unemployment which has pervaded every facet of the country.

HINDRANCES TO ENTREPRENEURIAL DEVELOPMENT IN NIGERIA

Despite the fact that innovation plays a vital role in entrepreneurship, there are still some forces hampering its development in Nigeria. National Union of Textile Garment and Tailoring Workers of Nigeria (NUTGTWN) as quoted in Owa (2008), lists some of the hindrances to include closed down textile factories and sack of about twelve thousand, five hundred and twelve (12,512) workers. Other constraints ranges from extreme inequalities in wealth distribution, lack of infrastructural facilities, environmental forces, operational difficulties, corruption and organised crimes. These afore-mentioned roadblocks coupled with series of cultural problems, vulnerability to external shocks, natural hazards, difficulty in getting favourable business location, are responsible for the stunted growth of entrepreneurship development in the country.

HISTORICAL OVERVIEW OF TEXTILE AND FABRIC DESIGN

According to Fartex (2012), development of clothe manufacturing predated 20th century and evidence suggests that it was as far back as 100,000 to 500,000 years ago. The sustenance of textile till date is a pointer to its significance in terms of usage and income generation.

SOURCES AND TYPES OF TEXTILES

Textiles can be made from materials such as animal, plant, minerals and synthetic product. Textiles from animals are in form of fur, hair and skin or silk. Hair from goat or sheep is referred to as wool, which is commonly used for warm clothing. Silk is an animal textile made from fibres of cocoon of the Chinese silkworm (Trevisan).

Another material for textile is plant. All plants can be used to produce grass and rush while only fibres from plants are used in producing hemp and sisal. Coir (coconut fibre) is used in making twine, brushes, mattresses; floor tiles etc. straw and bamboo are used to make hats. Fibres from pulpwood trees, cotton, rice, hemp and nettle are used in making clothing.

In a similar vein, Asbestos and basalt fibre are used for vinyl tiles, sheeting and adhesives.

Glass fibre is used in producing ironing boards, ropes, mattress covers and cables. Metal fibres: metal foil and metal wire have a variety of uses including production of cloth-of-gold and jewellery.

The last source of textile material is synthetic fibres. All synthetic textiles are used primarily in the production of clothing. It could be in form of Polyester, Aramid,

Acrylic, Spandex, Olefin, Ingeo, Lurex, Carbon or Milk proteins which was developed during World War 1 in Germany, (Fonte 2005).

The manufacture of textiles is one of the oldest of human technologies. To make textiles; the first requirement is a source of fibre from which turns yarn into cloth. The machine for weaving is the loom.

APPROACHES TO WEALTH CREATION THROUGH TEXTILE AND FABRIC PRODUCTION

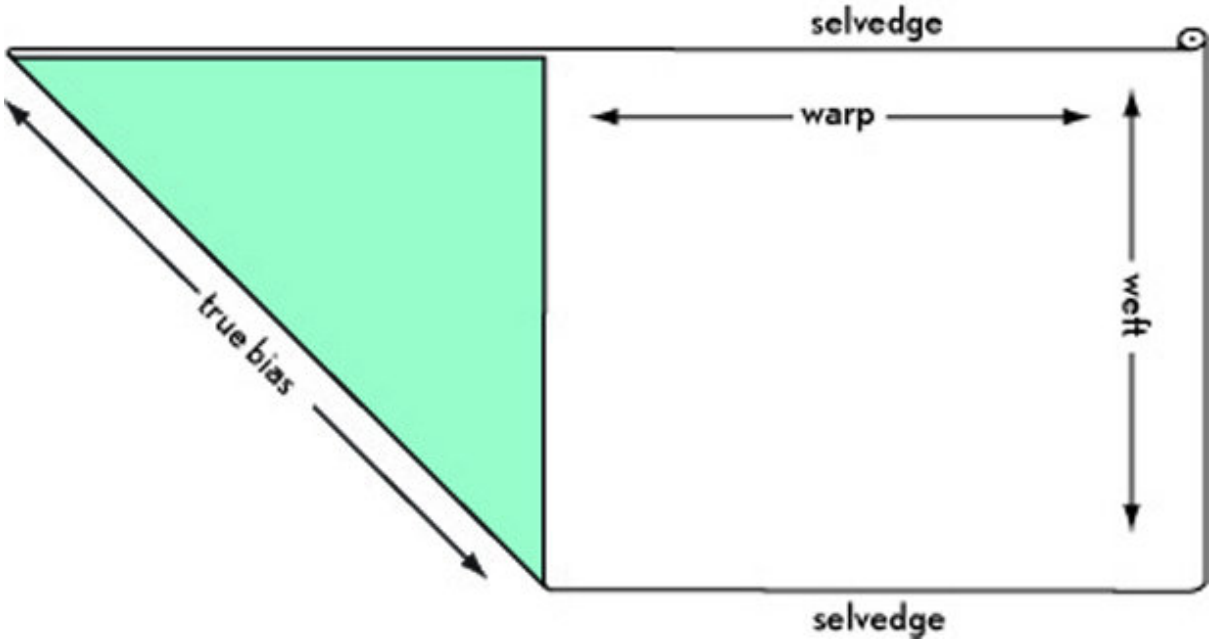
According to Ogunduyile (2001), the study of textiles design in both institutional and craft based level is about the study of marketing which could be viewed from the historical chronology of fashion clothing and trends. Nigeria textile craft industry have long established tradition of weaving which was in the beginning made for individual uses and for local markets. Though this local textiles craft consumption are faced with challenges from industrialised and commercialised production coupled with unrestricted importation of textile goods.(Kashim, Adiji and Oladumiye, 2012).

Creating wealth through textile and fabric production has a multi-faceted approach. They include;

- **Cotton Plantation**: This involves cultivation of cotton seeds for commercial production of cotton for textiles and fabrics production.

- **Weaving**: is the process of constructing fabrics by interlacing two sets of yarns (the warp and the weft yarns) at right angles (Anyakoha, 2006).

Figure 1: Local weaving machine



Source : Liesl (2014)

Figure 1 above shows the different parts of a local weaving machine.

Selvedge is the narrow finished lengthwise edges of a woven fabric, usually 1-4 to 1-2 wide that are often more tightly woven to prevent fabric from tearing after finishing from the mill.

Weft: The yarns that runs across the fabric from selvedge to selvedge.

Warp: The yarns in a fabric that run parallel to the selvedge. They are the strongest yarns that are wound into the loom before the fabric is woven.

Yarn: Is a long continuous length of interlocked fibres suitable for production of textiles, sewing, weaving made from synthetic or natural fibres.

True Bias: A 45 degree angle to the warp and weft threads.

- **Knitting**: The process of constructing fabrics by farming rows of loops with the yarn,(Anyakoha 2006). knitting has several active loops on one time, on the knitting needle waiting to interlock with another loop.
- **Crocheting:** It involves interlacing loops of yarn formed on a crochet hook together in a line.
- **Dyeing**: Across the South, bright colours and patterns are popular. These are created using various techniques which keep some of the cloth from being dyed. Pattern-dyed cloth is known as 'Adire' is common mostly South- Western zone of Nigeria.
- **Special garments production**: In some parts in Nigeria, special garments are made from strips of woven cloth (known as 'Aso-Oke' in Yoruba regions), where weavers are often commissioned to make a special pattern for certain families or occasions.
- **Fashion design (Tailoring):** is the art of the application of design and aesthetics or natural beauty to clothing and accessories.
- **Ginning:** This is the process of separating or removing cotton fibres from the seeds.

- **Spinning**: Is the process of drawing the fibres into silvers and twisting them for strength.
- **Chemical treatment**: Fleece from sheep must be processed in soapy alkaline water to remove dirt and grease, also viscose rayon from wood pulp or cotton linters are treated with certain chemicals like acetic acid to produce regenerated cellulose fibre. Viscose rayon is used for bed sheets, bedcovers, home finishing's, table cover, underwear's, etc. (Anyakoha 2006).
- **Embroidery:** is a decorative needle work in which designs and pictures are created by stitching strands of some material on to a layer of another material.
- **Laundry and dry cleaning**: is the washing of clothing and lines. Is a business establishment where cloth, lines, etc are laundered?
- **Marketing of textiles and fabrics designed end products**: All the above mentioned activities will end up in turning out products which must be marketed by experienced entrepreneurs or marketers. Marketing of textile products therefore entails identifying where any of those items are needed. Such products or services must be promoted in such ways that it will attract the customers' attention, stimulate them to buy and satisfy them appropriately. This will result to profitability for the enterprise.

CONCLUSION

We thus conclude as follows; Many profitable aspects of textile and fabric design production still remains an area of entrepreneurial skills undiscovered, untapped and unutilised. Some are only aware of tyeing and dyeing, fashion design and laundry, while other areas mentioned earlier are left untouched, hence the high rate of unemployment in the country.

RECOMMENDATIONS

Based on the research findings, textile and fabric production still remain un-tapped in Nigeria. Therefore, the government should create an enabling environment for the promotion and production of textile and fabric products in Nigeria. Managerial and technical research institutes would be a boost to the development of textiles and fabrics products in Nigeria, hence such should be organised and established by the governments.

Rather than searching for non existing white collar jobs, youths/graduates should be encouraged to launch into untapped/undiscovered business innovation in textile fabric products in order to create wealth and boost the nation's economy.

Lastly, the government should sensitize Nigerians to patronise and use made in Nigeria textile as this will boost local production of textile in the country and mitigate unemployment.

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Relations Among Personality Traits, Market Orientation And Organizational Performance

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Introduction: It is argued that entrepreneur's personality traits drive entrepreneur oriented in market and making innovations to meet market, customer demands. This study aims at building and empirically testing a model presenting the relations among entrepreneurs' personality traits, market orientation and organizational performance.

Methods: Quantitative method was used. Data were collected in convenient way from enterprises in Hochiminh City.

Analysis: Each measurement scale and all scales were tested for their convergent, discriminant validity and reliability with EFA, Cronbach's Alpha. CFA in combination with SEM was used to test scales, measurement, structural model and hypotheses. Path analyses were conducted for estimations of these relations.

Results: Personality traits and components of market orientation are interrelated. Need for achievement and internal locus of control have the same strong relations with responsiveness while only internal locus of control has relation with intelligence generation. Internal locus of control has stronger impact on the enterprise's performance as compared with need for achievement. The combination of need for achievement and internal locus of control explain how entrepreneurs exploit opportunities creating innovation and performance.

Conclusions: Entrepreneur's personality traits, market orientation and enterprise performance have strong relations with each other. The results explain how entrepreneur creates innovation, performance in view of personality traits with market orientation as a moderator. Some managerial implications for entrepreneurs are proposed.

Introduction

Entrepreneurship is a research field getting more attention and development recently. Studies of entrepreneurship aim at answering the three questions: (1) why, when, and how opportunities for the creation of goods and services come into existence; (2) why, when, and how some people and not others discover and exploit these opportunities; and (3) why, when, and how different modes of action are used to exploit entrepreneurial opportunities (Shane & Venkataraman, 2000). The first and third question has been in the field of economic research while the

second question has been the focus of entrepreneurship research in managerial perspective.

Studies to answer the second question have, at the beginning, focused on the personality traits as factors to differentiate between persons discovering and not discovering the opportunities and the relations among these personalitiy traits with organizational performance. There were many personality traits of interest, namely, need of achievement, locus of control, flexibility, tolerance for ambiguity, risk taking…(Carland *et al.*, 1984). These studies generated controversial results because of many personality traits with different definitions used in the studies (Wiklund & Shepherd, 2005). In addition, there is a gap between personality traits that a person posseses and what she/he does. Therefore, to increase the explaination of the study and the consistency of the study results, studies in this direction should link these personality traits with her/his actions and the performance resulted from the actions (Gartner, 1988). Hence, some recent studies have involved various internal variables such as organizational structure, strategy (Miller & Toulouse, 1986), knowledge management (Lakshman, 2009; Wiklund & Shepherd, 2003). Market orientation - an internal variable creating the innovation and organizational performance has also been included in studies in this direction. However, these studies have focused on relation between entrepreneurial orientation - an organizational behaviour variable - and market orientation with data from large firms (Atuahene-Gima & Ko, 2001; Gonzalez-Benito *et al.*, 2008; Li *et al.*, 2008; Matsuno *et al.*, 2002). In contrast, small and medium sized

enterprises are established and managed by entrepreneur (d'Amboise & Muldowney, 1988). The entrepreneur with her/his entrepreneurship composed by personality traits sets the enterprise's managerial system and operates the enterprise. Hence, her/his personality traits have impact on organizational behaviours including entrepreneurial orientation, market orientation and performance (Hambrick & Mason, 1984; Meredith & Kotey, 1997;Wiklund & Shepherd, 2005). As such, market orientation of SMEs should be studied in accompany with the entrepreneur's personality traits. However, the relations among entrepreneur's personality traits and market orientation, organizational performance have not been paid much attention. Therefore, such questions as what personality trait drives the market orientation to create organizational performance or how entrepreneurs with these personality traits exploit opportunities creating innovations have not been answered. The answers to these questions will explain why some entrepreneurs have more success than the other entrepreneurs and improve the entrepreneur's undestanding of their personality traits' influences on market orientation, then, organizational performance. Basing on this, the entrepreneur can improve the personality traits for more market orientation and higher performance. This understading also helps potential entrepreneurs in recognition of personality traits having strong impacts on market orientation, and firm's performance, thus, improving their personality traits before starting up a firm for more success chances. The answers to these questions by an empirical study with evidence from SMEs in transitional economy of Vietnam is of more

importance because of differences in institutional, market conditions and size of the firms between Vietnam and other developed countries.

As such, the objective of this study is to build up and empirically test a model presenting the relations of entrepreneur's personality traits, components of market orientation and organziational performance. Theoretical background for the model building, research method and results are presented in the followings

Theorectical background and hypothesis

Personality traits

Personality traits are psychological descriptors that are assumed to be part of the psychological make-up of individuals that cause them to be disposed to behave in particular ways (Chell, 2008). Personality traits are used to recognize individual differences. Due to the entrepreneruship approached by various perspectives like economics, psychology, management, businesses, there have been many defintions of entrepreneurship depending upon the specific perspective. In search of the definition, at the beginning of entrepreneurship research, "who is an entrepreneur?" is a question of interest. To answer this question, personality traits have been applied because these traits could differentiate entrepreneurs from normal business owners and explain the intention, behaviour of the entrepreneurs (Carland *et al.*, 1984; Krueger, 2002).

Personality traits often involved in the entrepreneurship research are need for achievement, risk taking, self-confidence, autonomy, power, recognition, internal locus of control, flexibility among others (Carland *et al.*, 1984; Zhao *et al.*, 2010). Some of the traits, particularly, risk taking are not independent, but, dependent or reflecting the other traits. These personality traits are defined and selected differently depending upon perspectives and contexts of studies. Thus, the research results have not been identical. To solve this problem, studies basing on the personality traits should include organizational internal variables, environmental charateristics and organizational performance (Gartner, 1988; Lumpkin, 2004).

The entrepreneur expects her/his enterprise growing and success in the market because of her/his need for achievement (Shane & Venkataraman, 2000). Need for achievement is the behavior directed to competition with a standard of excellence (McClelland, 1953). To grow the enterprise up, the entrepreneur creates innovations. To do so, the entrepreneur has to be ready for and accept changes in the products, technology, delivery and internal management (Miles & Snow, 2003). These require the entrepreneur having flexibility - the adaptable capability of thinking way, social behaviour of a person (Miller & Toulouse, 1986). Thus, it could be hypothesized that:

H1: The need for achievement has a positive impact on entrepreneur's flexibility

To assure of the success of innovation, the entrepreneur makes plans and control strictly the plan implementation. She/he believes in her/his capability to do so and that her/his efforts result in the success of the innovation. These are the entrepreneur's internal locus of control (Rotter, 1966). Thus, it could be hypothesized that:

H2: The need for achievement has a posititve impact on internal locus of control

As the entrepreneur has flexibility, she/he accepts changes and performs changes quickly. However, these changes are directed to innovation and required to succeed. Therefore, the entrepreneur controls the business activities. The higher the entrepreneur's flexibility is the higher the entrepreneur's internal locus of control is. Hence, a hypothesis could be stated as following:

H3: Flexibility has positive impact on internal locus of control

Market orientation

Market orientation is a concept relating with marketing concepts. This concept could be approached in behavioural (Kohli, A.K & Jaworski, 1990) or cultural perspective (Narver & Slater, 1988). In behavioural perspective, market orientation emphasizes on continuously monitoring changes in market, customer need, and performing innovations, changes to meet and satisfy the customers'need. Market orientation makes the enterprise respond quickly to the customers' changes, create

innovations as competitive advantage for the enterprise and improve the enterprise's profit, growth. Hence, market orientation as an expression of entrepreneurship is implemented in the enterprise by the entrepreneur.

Market orientation is composed of three components, namely, intelligence generation, intelligence dissemination and responsiveness (Kohli, A.K & Jaworski, 1990). Intelligence generation is the collection of relevant market information from the environment and customers, competitors whereas intelligence dissemination is the sharing of the information within the enterprise across horizontal departments and vertical power structure. Responsiveness refers to the strategies, actions the enterprise performing to the environment, customers basing on decisions made from the information interpretations, discussions.

Intelligence generation generates information for the enterprise. It looks for and collects relevant information from outside into the enterprise. The information will be tracked with the existing one and interpreted to recognize changes in market and customer need. In order to have full pictures of the changes, the information will be disseminated within the enterprise so that functional staff and manangers of all hierachical levels of the enterprises can access and interprete it in their own view. The interpretations will be intergrated to have full understanding of changes. From the integrated interpretations, responses to the market, customer need will be designed and selected. These could be encapsulated in two following hypotheses as following:

H4: Intelligence generation has positive impact on intelligence dissemination.

H5: Intelligence dissemination has positive impact on responsiveness.

Relations between personality traits and market orientation

Having the need for achievement, but, limitation of resources, the entrepreneur follows "first entrant" strategy by creating innovations to meet customers'changes before the other enterprises in the market. To do so, the entrepreneur needs understanding of the changes. Thus, she/he sets up a system to collect the relevant information from the environment, customers, competitors. The collected information is tracked with the existing one to recognize changes in the market, customers' need. Thus, a hypothesis could be stated as following:

H6: The need for achievement has a positive impact on intelligence generation

In order to understanding the changes, the collected information is interpreted with different perspectives. The interpretations give a full picture from the information (Weick & Daft, 1984). To achieve the so different interpretations, the collected information is disseminated within the enterprises. Depending upon the organizational structure of the enterprise, the information could be shared within horizontal departments, particularly, from the marketing department to other deparments such as manufacturing, R&D, procurement. The information could also be shared upward from the operational level, e.g., marketing, to middle level

and strategic level or vice versa (Kohli, A.K. *et al.*, 1993). Therefore, the higher the need for achievement is, the more collected information is, the more the information dissemination is. This could be encapsulated in a hypothesis as following:

H7: The need for achievement has a positive impact on intelligence dissemination

With need for achievement, the entrepreneur needs to make response quickly to meet changes in environment and customers. She/he encourages the information interpretation, response formulation and implementation. Short time to make responses and customers' satisfaction are her/his expectations to enjoy the advantages of "first entrant". Hence, a hypothesis could be stated as following:

H8: The need for achievement has a positive impact on responsiveness.

Having internal locus of control, the entrepreneur believes in and uses her/his knowledge, experiences to give directions for information collection to recognize market changes and solve the need for innovation of the enterprise (Simon, 1959). The intelligence generation is, thus, an activity directed by the entrepreneur. The more the entrepreneur believes in her/himself the more she/he controls the direction of information collections. Thus, a hypothesis could be stated as following:

H9: The internal locus of control has positive impact on intelligence generation.

Also owing to having internal locus of control, the entrepreneur selects a response to the market which is of her/his control in terms of knowledge, experiences, available resources and implementation process. Such controlling will be an assurance of the success for the entrepreneurs. As such, it could give a hypothesis as following:

H10: Internal locus of control has a positive impact on the responsiveness.

Organizational performance is direct result of response implementation that the enterprise makes to the environment. However, when the intelligence generation is well performed, the enterprise has more relevant information and defines the environment and market changes more appropriately. Hence, various suitable responses could be made. This increases the chance of selecting the most suitable one to implement causing higher organizational performance. As such, intelligence generation has an influence on organizational performance. Since then, two hypotheses concerning with organizational perfomance are as following:

H11: Responsiveness has positive impact on the organizational performance

H12: Intelligence generation has positive impact on the organizational performance

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All of the stated above hypotheses form a research model which could be presented schematically in the Figure 1.

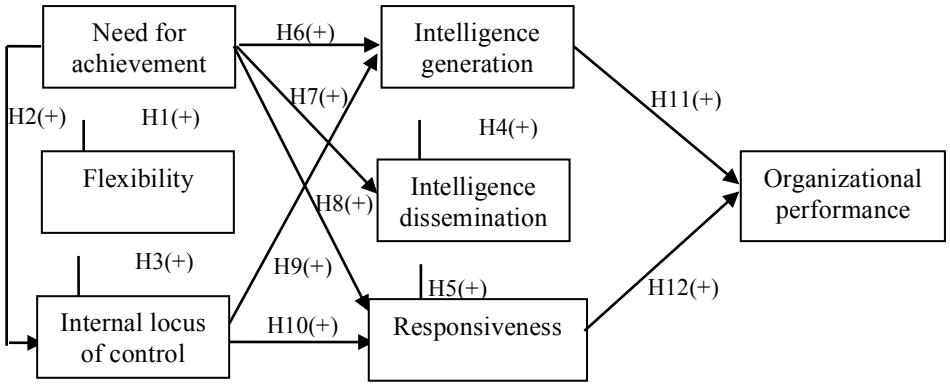

Figure 1: Research model

Method

Research method

The study was performed with quantitative two step approach (Anderson & Gerbing, 1988). The first step is to test measurement scales in terms of content, face validity, convergent validity, dimensionality, discriminant analysis with exploratory factor analysis (EFA) and reliability with Cronbach's Alpha. The second step is to test the measurement and structural model with confirmatory factor analysis (CFA) in combination with structural equation modeling (SEM). The statistical softwares used to treat data were SPSS 20 and AMOS 5.0

Data collection

Data were collected from enterprises in Hochiminh City. Sampling procedure was convenient. Tool for data collection was a questionnaire composed of two parts. One part is for entrepreneur's data collection and the other is for entrepreneur's perception on personality traits, market orientation components and organizational performance. The questionnaire was sent to the entrepreneurs with a cover letter presenting the objectives and contents of the study. Telephone calls to the enterpreneurs were conducted to encourage them to fill out the questionnaire. In all, 2012 questionnaires have been sent out and 314 questionnaires of full information were got back. The response rate is 15.6%.

Measures

Components of personality traits

Indicators for the three personality traits were created from the definitions of the three concepts: Need for achievement, flexibility and internal locus of control presented in previous studies (Carland *et al.*, 1984; McClelland, 1986; Miller *et al.*, 1982; Rotter, 1966). There were four indicators created for each personality trait.

These personality trait scales were tested for their face and content validity through discussions with seven entrepreneurs and two academicians for their understanding and agreeing with the statements of the indicators and any changes, additions required to adjust the scales. All of these scales were accepted without any changes required and presented in Appendix.

Components of market orientation:

MARKOR is a market orientation measurement scale created by Kohli. *et al.*, (1993) and tested in previous studies given valid results. This scale is a second order scale with three first-order scales, namely, intelligence generation, dissemination and responsiveness. The three first-order scales were components having relations with personality traits and were tested for their contents, face validity as presented above with personality traits. The final scales include 3 indicators for each component and shown in Appendix.

Organizational performance:

Organizational performance should be measured with both objective measures like financial data, turnover, sales volume… and subjective measures reported by the perception of the enterprise managers. Although reported by the perception of the mangers, the subjective measures are closely correlated with objective measures and could be used as measures of organizational performance (Dawes, 1999; Dess & Robinson Jr., 1984; Jennings & Young, 1990). In this study, due to difficulties in collecting objective measures, subjective measures were used. The organizational performance scale created by Choi & Lee (2003) were reused in this study. The scale was composed of four indicators, namely, market share, growth rate, number of innovations, size of the enterprise as compared with the competitors. The organizational performance scale was also tested for its contents, face validity as the other scales stated above. The final organizational performance

scale composed of four indicators was acceptable in view of content and face validity as presented in Appendix.

In all, there were 25 indicators for all measurement scales. The indicators were scored with 5-point Likert scale with 1 as total disagreement and 5 as total agreement.

Analyses and results

Sample descriptive statistics

Among 314 enterprises in the sample, there are 42.0% was manufacturing, 21.0% trading, 24.0% service and 12.1% trading-service firms. The employee number varied: Less than 10 persons 17.5%, from 11 to 50 persons- 31%, from 51 to 100 persons –19.7%, from 101 to 200 persons – 18.8% and more than 200 persons – 12.8%. All of the enterprises started their operations more than 3 years before the date of data collection.

Measurement testing

To test the convergent validity, dimensionality and discriminant of the scale, EFA was applied. Indicators with factor loading less than 0.5, high cross loadings on more than one factors were deleted from the scale. The scale reliability was tested with Cronbach's Alpha. Any indicator having item-to-total correlation less than 0.5 or inter-item correlation less than 0.3 was deleted from the scale and the scale reliability must be over 0.6 (Hair *et al.*, 2010). There were three indicators in

personality trait measurement scales and one in organizational performance measurement scale deleted from the original ones. The results are presented in Table 1 showing that all of the final scales are acceptable with factor loadings over 0.7 except for OP39, averaged variance extracted over 62%, item-to-total correlation over 0.5, Alpha over 0.696. Then, each scale was analyzed with CFA and SEM for its fitness to the data, its structure, variance extracted, and composite reliability. The results of CFA for each scale are also shown in Table 1.

Table 1: Results of EFA, Alpha and CFA for each measurement scale

EFA					CFA		
Indicators	**Factor loadings**	**Averaged Variance extracted**	**Item-to-total correlation**	**Cronbach's Alpha**	**Standardized regression weight**	**Variance extracted**	**Composite reliability**
Flexibility - PF (KMO=.688)		68.48%		.770		68.81%	.722
PF1	.868		.698		.852		
PF2	.810		.679		.874		
PF3	.803		.667		.758		
Internal locus of control - PC (KMO=.669)		69.58%		.770		69.49%	.719
PC6	.875		.681		.877		
PC7	.819		.617		.805		
PC8	.807		.601		.817		
Need of achievement - PN (KMO=.708)		75.95%		.840		75.28%	.800
PN10	.851		.674		.841		
PN11	.901		.763		.899		
PN12	.860		.685		.862		

Intelligence generation – IG (KMO=.705)		74.29%		.820		72.37%	.803
IG28	.882		.675		.878		
IG29	.883		.675		.871		
IG30	.820		.792		.801		
Intelligence dissemination – ID (KMO=.698)		74.34%		.826		71.27%	.835
IS31	.877		.708		.858		
IS32	.808		.604		.802		
IS33	.899		.744		.871		
Responsiveness – Re (KMO=.769)		63.06%		.798		60.83%	.811
IR34	.794		.576		.782		
IR35	.836		.644		.815		
IR36	.750		.563		.741		
Organizational performance – OP (KMO=.732)		62.11%		.696		58.96%	.720
OP38	.853		.564		.826		
OP39	.643		.503		.628		
OP40	.849		.567		.832		

The results show that all of the scales are unidimensional with standardized regression coefficients over 0.628, variance extracted over 58.96%, composite reliability over 0.719.

A measurement model was built up from all the scales and tested with CFA in combination with SEM. The measurement model was well fitted with the data as

$\chi 2$=406.517, DF=168, $\chi 2$ /DF= 2.420, CFI=0.924, TLI=0.905, RMSEA=0.067. The structures of the measurement scales were unchanged, unidimensional, convergent. Results of discriminant analysis among scales were presented in Table 2. The 95% reliability range of correlation coefficients between any pair of the scales in the measurement model did not cover unit proving the discrimination among the measurement scales (Gerbing & Anderson, 1988).

Table 2: Results of discriminant analysis

Measurement scales			Correlation Estimate	Standard Error	95% reliability range		P.
					Upper level	Lower level	
PF	<-->	PC	0.666	0.028	0.722	0.610	***
PF	<-->	PN	0.737	0.029	0.795	0.679	***
PC	<-->	PN	0.733	0.035	0.803	0.663	***
PF	<-->	IG	0.309	0.026	0.361	0.257	***
PF	<-->	ID	0.263	0.025	0.313	0.213	***
PF	<-->	Re	0.347	0.027	0.401	0.293	***
OP	<-->	PF	0.282	0.020	0.322	0.242	***
PC	<-->	IG	0.450	0.035	0.520	0.380	***
PC	<-->	ID	0.329	0.033	0.395	0.263	***
PC	<-->	Re	0.467	0.036	0.539	0.395	***
OP	<-->	PC	0.417	0.028	0.473	0.361	***
PN	<-->	IG	0.351	0.033	0.417	0.285	***
PN	<-->	ID	0.338	0.032	0.402	0.274	***
PN	<-->	Re	0.342	0.033	0.408	0.276	***
OP	<-->	PN	0.362	0.026	0.414	0.310	***
IG	<-->	ID	0.680	0.047	0.774	0.586	***

IG	<-->	Re	0.602	0.045	0.692	0.512	***
OP	<-->	IG	0.622	0.039	0.700	0.544	***
ID	<-->	Re	0.730	0.048	0.826	0.634	***
OP	<-->	ID	0.620	0.038	0.696	0.544	***
OP	<-->	Re	0.609	0.039	0.687	0.531	***

Thus, the scales were acceptable for the structural model testing. The structural model was tested also with CFA in combination with SEM. The results showed that the structural model was fitted well with the data as $\chi 2 = 411.504$, DF=172, $\chi 2$ /DF= 2.392, CFI=0,924, TLI=0,907, RMSEA=0,067. As such, coefficients computed from the structural model testing were valid.

Hypothesis testing

The regression coefficients among components in the research model were withdrawn from the structural model testing and presented in Table 3. Except the regression coefficients between PN-IG, PN-ID, the other regression coefficients were positive and statistically significant with C.R.> 1.96 at $p<0.05$ (Byrne, 2010). As such, except hypothesis H6, H7, the rest ten hypotheses were supported by the data.

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Table 3: Regression coefficients

Relations			Regression coefficient		S.E.	C.R.	P	Hypothesis
			Unstandardized	Standardized				
PF	<---	PN	.573	.737	.065	8.815	***	H1 supported
PC	<---	PN	.518	.531	.100	5.180	***	H2 supported
PC	<---	PF	.346	.276	.123	2.813	.005	H3 supported
ID	<---	IG	.657	.675	.072	9.125	***	H4 supported
Re	<---	ID	.681	.667	.068	10.015	***	H5 supported
IG	<---	PN	.058	.047	.158	0.367	.713	H6 unsupported
ID	<---	PN	.234	.194	.134	1.746	.081	H7 unsupported
Re	<---	PN	.260	.212	.122	2.131	.007	H8 supported
IG	<---	PC	.555	.437	.154	3.604	***	H9 supported
Re	<---	PC	.430	.341	.127	3.386	***	H10 supported
OP	<---	IG	.253	.335	.066	3.833	***	H11 supported
OP	<---	Re	.211	.277	.071	2.971	.003	H12 supported

Discussion

Relations among personality traits

The regression coefficients show that the three personality traits are related with each other. Need for achievement is the driving force to flexibility and internal locus of control, and, flexibility drives internal locus of control. This result is in accordance with McClelland (1986) that need for achievement is one of the main psychological characteristics of the entrepreneur.

Relations between components of market orientation with each other and with organizational performance

The regression coefficients also show that intelligence generation has positive impact on intelligence dissemination and, in turn, intelligence dissemination has strong impact on responsiveness. These are in harmony with previous studies (Kohli, A.K. *et al.*, 1993; Varela & Rio, 2003)

The total impact of intelligence generation on organizational performance is 0.460 which is stronger than impact of responsiveness on organizational performance (0.277). This could be explained by the fact that as looking continuously for new information from the outside the enterprise has more updated information, hence, interprets and shapes environment better, makes more alternative solutions, and has high probability to select the right solution to respond to the environment (Varela & Rio, 2003).

The results show that between personality traits and market orientation, there are three relations: Need for achievement with responsiveness, internal locus of control with intelligence generation, internal locus of control with responsiveness. The entrepreneur with need for achievement makes responses to the environment to meet customers'changing demands in order to get the advantage of "first entrant" in the market. She/he gets problems in market and technology uncertainty. But, she/he could overcome these problems because she/he starts the business with small market niche, then, enlarges the market share later (Robinson & Min, 2002). She/he could change technology, production lines and internal managerial processes quickly to adapt the uncertainties (Miller & Friesen, 1982). Moreover, with internal locus of control, the entrepreneur directs and controls the intelligence generation and getting more information about customers'need. Driven by need for achievement, internal locus of control, she/he could generate more responses to the market and select the one that satisfies her/his need of achievement and is under her/his control. This result is in accordance with bounded rationality theory that a manager gives directions to look for outside information to interpret and shape the environment, then, looks for alternative responses, then, selects a response that satisfies her/his psychology most (Simon, 1959).

In order to understand the impact of personality traits on components of market orientation and the organizational performance, path analyses have been conducted. The results are presented in Table 4.

Table 4: Path analysis results

Relation	Direct impact	Indirect impact	Total impact
PN → Re	.212	.327	.539
PN → IG		.321	.321
PC → IG	.437		.437
PC → Re	.341	.197	.538
PN → OP		.149	.149
PC → OP		.295	.295

The results show that need for achievement has no direct impact, but, has strong indirect impact on intelligence generation (.321). This impact is less as compared with impact of internal locus of control on intelligence generation (.321 vs. .437). Need for achievement and internal locus of control have the same impact on responsiveness (0.539 vs 0.538), but, need for achievement has also lower impact as compared with internal locus of control on the organizational performance (.149 vs. .295). These mean that both need for achievement and internal locus of control have strong relations with market orientation and organizational performance, but, internal locus of control plays a more important role than need for achievement in these relations.

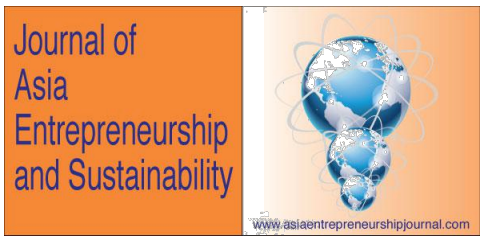
Need for achievement and internal locus of control in combination will, thus, explain why the entrepreneur has more innovations, more new products to replace the existing ones when the existing ones facing competitions with follower-manufacturer or in declining phase. This combination of the two personality traits is basis for the innovation capability of the entrepreneurial firms.

Conclusion

The way an entrepreneur discovers and exploits an opportunity can be explained by the model involving entrepreneur's personality traits, market orientation and organizational performance. Need for achievement, flexibility and internal locus of control have close relations with components of market orientation. Need for achievement plays a driving role in acceleration of flexibility, and, internal locus of control. Flexibility has positive impact on internal locus of control. Need for achievement and internal locus of control have the same impact on responsiveness while only internal locus of control has impact on intelligence generation. Internal locus of control has stronger impact on organizational performance as compared with need for achievement. Intelligence generation driven by internal locus of control causes more impact on organizational performance than responsiveness accelerated by need for achievement and internal locus of control. These results show the role of need for achievement and internal locus of control in explanation of intelligence generation and responses to the market, e.g., innovation capability of the enterprise to create organizational performance. The study results are in accordance with unbounded rationality theory and explain the impact of the

entrepreneur's personality traits on market orientation and enterprise performance. The results explain why entrepreneur can exploit opportunities to create innovation and performance in view of personality traits with market orientation as a moderator. They also help the entrepreneur to understand the impact of her/his personality traits on organizational performance, then, prepare her/his personality traits for her/his higher enterprise's performance.

However, the study has some limitations. Its sampling procedure was convenient and enterprises in the sample were in Hochiminh City - the biggest city in Vietnam. Thus, the sample was not representative for SMEs in Vietnam. Moreover, the study was made in a transitional economy of Vietnam with SMEs as private sector at infant state. Hence, studies with random sampling in other economic context should be made to generalize the results.



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Appendix: Measurement scales in this study

Measurement scale	Indicator name	Indicator description
Personality traits		
Flexibility	PF1	The entrepreneur always looks for new information from outside.
	PF2	The entrepreneur prefers short-term to long-term planning to respond quickly to new events in the market.
	PF3	The entrepreneur always accepts risks to be flexible in the market.
	PF4	The entrepreneur builds simple organizational structure
Internal locus of control	PC6	The entrepreneur always makes a lot of efforts in the works.
	PC7	The entrepreneur always actively makes plans directing all future activities of the enterprise
	PC8	The entrepreneur always encourages studies for new product development or innovations.
	PC9	The Entrepreneur always creates a team work style and supports innovations under her/his supervision.
Need for achievement	PN10	The entrepreneur always sets challenging objectives and makes a lot of efforts to achieve these objectives.
	PN11	The entrepreneur always looks for new ways to perform the work better
	PN12	The entrepreneur always listens to comments/suggestions fedback to her/him to assess her/his performance.
	PN 13	The entrepreneur always considers risks in the enterprise's activities and find the solutions to prevent the risks
Market orientation		
Intelligence generation	IG28	Enterprise meets customers at least once a year to look for new products or services that customers need in the future
	IG29	Enterprise recognizes quickly changes in customer need.
	IG30	Enterprise invites customers at least once a year to evaluate its product quality

Measurement scale	Indicator name	Indicator description
Intelligence dissemination	IS31	The marketing staff of the enterprise spend time to discuss future need of customers with staff of the other functions.
	IS32	When an important thing happens to a key customer of a business territories. the whole trading unit will be informed of it in very short time.
	IS33	Data on customer satisfaction are shared very often to all level of the trading unit.
Responsiveness	IR34	Enterprise makes quick response to changes in the competitors' prices
	IR35	Enterprise always responses to changes in customers needs.
	IR36	Enterprise reviews periodically its efforts in product development to make sure that the product meeting customers' demands.
Organizational performance		
	As compared with the competitors during the past two years, your enterprise has:	
	OP38	- larger market share
	OP39	- higher growth rate
	OP40	- bigger number of innovations
	OP41	- larger firm size

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External Business Networks and Innovation Performance in SMEs: The Empirical Study on the Underwear Industrial Cluster in Shantou, China

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Abstract

This paper investigates the influence on firms' innovation performance from different external business networks, and also explores connections of firms' innovation performance with local underwear industrial clusters and FDI spillover effects. We use a survey approach and empirical analysis by drawing data from local firms in Shantou. After using the SPSS and Lisrel analysis, three conclusions are drawn.

Firstly, firms in an industrial cluster with close relationship have higher innovation performance. Secondly, FDI spillover effects bring positively affects to innovation performance. Thirdly, external business networks have positive influence on firm innovation performance. Based on the research conclusions, some suggestions about policies are given.

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1. Introduction

In resent years, to seek a chance for development, firms learn from outside as promoting their internal management and qualities of goods and service. As for the local Small and Medium Enterprises (SMEs) with inferior technology and resources, it is difficult for them to survive and thrive in such a competitive business market. On this score, different external business networks are quite considerable resources for them. Speaking of Shantou, a crucial economic region of eastern coastal city in China, has underwear, toy and printing industrial clusters. In these cluster, local firms gather geographically, build close cooperation with upstream and downstream industries and have clearly delineated responsibilities. Nowadays, gaining foreign investment and introducing advanced technology play a critical role in the production qualities progress and technology innovation which will also contribute to industrial structure upgrading and appropriate economic transition.

In practice, it has been proved that the key point of technology innovation for domestic private enterprises is keeping keen mind to absorb resources and information from outside instead of only depending on talents recruitment and technology introduction. For them, acquiring innovation resources by studying from outside and renovating knowledge is the key to respond to the changing market, the assurance of improving international competitive capacity, the crucial weapon to survive, and the main channel to enter, follow and even surpass the foreign-funded enterprises. With regard to Shantou, one of the earliest cities open

to the outside world, international business network (FDI spillover effect) is the important way to learn from the outside. When communicating with the foreign-funded enterprises, they will transfer the updated and useful information to domestic enterprises inevitably and help them improve their technology indirectly. Meanwhile, domestic market network formed in a same local industrial cluster is a platform where they benefit from each other in technology and information, and is also the information source to achieve independent innovation.

For enterprises in an FDI-embedded local business cluster, they face with many kinds of information sources. Thus, by what channels the enterprises can collect updated information and knowledge? Do these updated information and knowledge help improve the innovation performance? Therefore, to answer the above questions, we investigate the effects of different external business networks on local firms' innovation performance. Firstly, we define different external business networks, including local business network, horizontal spillover effect and vertical spillover effect. Secondly, we make a questionnaire survey in Shantou, where Opening-up policy started, FDI-embeded more widely and enterprise clusters typically developed. Thirdly, we take empirical analysis on underwear industry, which is the largest industry cluster in Shantou. Based on the empirical analysis, our findings will contribute to enriching the relevant studies. Furthermore, it will be helpful for analyzing and guiding the effective enhancement of the innovation for local enterprises.

2.Theories and Hypothesis

2.1 External business network

Most researchers deem that there is a positive correlation between firms' external relationship and independent innovation performance. Sytch and Tatarynowica (2014) utilized the data of computer industries in 1981-2001 to explore the different influence on the firms from single a market network and a global market network, showing that those firms establishing a connection with many global markets gain more external business networks and have higher performance and technology innovation than those without. Also, those in the capital perform better than those on the fringe of the market. Kittilaksana and Ren (2013) and some other scholars researched on the association between the capacity of innovation and accesses to the internal and external business networks among Small and Medium Enterprises (SMEs) of Zhejiang. According to the research, the bigger scale of the network is the more resources the network can supply for firms, which facilitate firms' research-and-development capability and improve their innovation performance. Therefore, the following hypothesis is brought forward:

H1: Firms' external business networks positively affect the independent innovation performance.

2.2 Local industrial cluster

Summarizing a vast amount of Chinese and foreign scholars' literature, Chinese scholar Wang (2010) described the local industrial network as a benefit from

regional external economic and interactive learning in collaborative vibe through communicating and cooperating. Karl and Goran (2010) found that the industrial clusters with strong connection can create more tax and profit for the society and have higher efficiency than those disconnected, according to the research about the effect made by industrial clusters on 4397 emerging industries' survival and development. Sing the empirical methods and dividing firms into city-center industries and industrial clusters, Gomellini et al (2014) studied the Italian firms' production efficiency and concluded that industries located in the city center keep sustainable in the production efficiency for several years while the industries in the cluster fail to do it. They also proposed the development of industrial clusters may lead to the district seclusion easily and hinder the information interaction between industries inside and outside of the cluster.

A stable cooperation network with local enterprises and suppliers can improve local firms' new products development performance (Saeed et al., 2014). During transition period in many developed economics, SMEs' capabilities of gaining the information and promoting innovation are enhanced through business networks (Branka et al., 2014). Even for the leather-shoes manufacture enterprises in the developing countries, local business network contributes to improving the absorptive capability and innovation performance in a cluster (Gebreeyesus and Mohnen, 2013). Moreover, in Chinese automobile clusters, business cooperation networks positively affect absorptive capability and innovation performance (Sherzod and Zhao, 2014). Based on the above analysis, we propose that: local

business network positively affects absorptive capability or independent innovation performance.

Based on the discussion above, this paper presents the following hypotheses:

H2: Local industrial clusters positively affect the innovation performance.

H2a: Closed associations with the suppliers positively affect the innovation performance.

H2b: Closed associations with the clients positively affect the innovation performance.

H2c: Closed associations with the competitors positively affect the innovation performance.

2.3 FDI spillover effect

Kinoshita (1994) raised the term "technical spillover", pointing out spillover effect is the crucial phenomenon of the FDI. Then many scholars made researches on the relationship between FDI spillover effects and firms' innovation performance. Kinoshita (2000) was not only in favor of the positive effect on firms' development brought by FDI spillover effects but also classified spillover effects into four kinds: imitation effect, competition effect, training effect and business link effect.

Eapen (2012) stated the ability of domestic firms to absorb FDI technique is related greatly with their environment, especially those in a cluster with frequent relation have more capacities of innovating. When Hsu and Chuang (2014) researched high-tech enterprises in Taiwan, the results also showed similarly that firms' innovation performance and profits are affected by the input for research and development, output performance and the cooperation with foreign merchants. However, as the research on FDI spillover effect furthering, more and more scholars question these effects and even propose they cause economic inefficiency. Hu and Jefferson (2002) analyzed panel data of Chinese electronic industries and textile industries. By the research, they put forward that FDI spillover effects hardly affect these two industries, and affect electronic industries less than textile industries.

Many empirical studies on horizontal spillover effect were conducted in emerging economies. Multinational companies improve the innovative capability of host enterprises by labor-mobility spillovers, and it is necessary for host countries to possess absorptive capability during the knowledge conversion (Dana et al., 2014). Thus, there is a positive relationship between horizontal spillovers and the innovation performance of local private enterprises while the relationship between vertical spillover and innovation activities is not supported (Long et al., 2014). Based on the above analysis, we propose that: horizontal spillover effect positively affects the absorptive capability and independent innovation performance.

For vertical spillover effect, many scholars made the empirical analysis based on different choices of countries and sample data. Based on the data collected from emerging economies, it is found that industries cooperation between foreign subsidiaries and local enterprises facilitates the productivity of local enterprises (Negara and Adam, 2012). However, horizontal spillover from foreign enterprises slows down the upstream vertical cooperation, while downstream vertical cooperation plays a positive role (Kokko and Thang, 2014). Further, building a theoretical model of knowledge flowing between foreign enterprises and local enterprises, the research found that the cooperation between local enterprises and foreign partners improved the knowledge absorptive capability and innovation performance (Christoffersen, 2013).

The following hypotheses are presented according to the literature above:

H3: FDI spillover effects positively affect the innovation performance.

H3a: Imitation effect positively affects the innovation performance.

H3b: Competition effect positively affects the innovation performance.

H3c: Training effect positively affects the innovation performance.

H3d: Link effect positively affects the innovation performance.

3. Research Methodology

3.1 Questionnaire designing

In this paper, the variable measures items refer to Samson (2005), Cooke and Clifton (2002), Zheng and Xu (2014), and they are revised for actual researches need. The seven degrees measurement method applies in all items of the scale. Marks ranging from 1 to 7 correspond to options ranging from "completely disagree" to "completely agree". The content of this questionnaire is divided into four parts: the first part gives the firms' basic information; the second part is the measurement on 34 items of the connection between firms and suppliers, clients and competitors in the cluster; the third part offers 10 items of measurement for FDI spillover effects; the measurement of firms' innovation performance is presented in the fourth part.

Further more, SPSS 16.0 is used to test and analyze the items. Cronbach α of innovation performance, local cluster network and FDI spillover effects are 0.715, 0.759 and 0.897, which suggest the high reliability on the questionnaire content consistency. In order to confirm the accuracy, Lisrel 8.7 analysis software is utilized to make confirmatory factor analysis for the scale. Table 1 shows the fitting effect. According to table 1 where all kinds of main fit indexes largely meet the inspection requirements, the division and measurement of local industrial cluster, FDI spillover effect and firm innovation performance are valid.

Table 1 The Confirmatory Factor Analysis

Index	Innovation Performance	Local Industrial Cluster	FDI Spillover Effect
Chi-square Value /FreedomX2/df(<5)	1.49	2.02	2.47
Goodness Fit Index GFI(>0.9)	0.94	0.93	0.96
Natural Talent Fit Index NFI(>0.9)	0.86	0.94	0.97
Incremental Fit Index IFI(>0.9)	0.96	0.98	0.98
Comparatively Fit Index CFI(>0.9)	0.96	0.98	0.98
Root-mean—Square-error-of-approximation RMSEA(<0.08)	0.065	0.071	0.077

3.2 Data explanation

Direct questionnaire investigation on firms is adopted for data collection. The valid data collected includes relative data from 69 firms in Chaonan District and

Chaoyang District. Moreover, the respondents are all major principals and experienced staffs who know much about their firms.

Table 2 Essential Information of Firms

Age	0-5	6-10	Over11	Size	0~50	51~100	101~500	Over501	Sum
Type	New	Growing	Grown		Miniature	Micro Miniature	Small	Middle and Small	
Quantity	14	46	9		25	18	22	4	69
Proportion	0.20	0.67	0.13		0.36	0.26	0.32	0.06	1

4. Research Results

4.1 Empirical analysis: firms' external business networks and innovation performance

4.1.1 Correlation analysis

This research uses Pearson correlation to analyze the variable and uses multiple regression to test the research hypothesis. From the results shown in table 3, significant associations are found among local industrial cluster, FDI spillover effects, and firm innovation performance. Correlation coefficient of the relationship between local industrial cluster and FDI spillover effects is

0.748($p<0.01$). And the correlation coefficient between FDI spillover effects and firms' innovation performance is 0.647($p<0.01$).

Table 3: Pearson Correlation Analysis Model for FDI Spillover Effect and Innovation Performance

	Firm-year	Firm-size	Innovation Performance	FDI Connection	Industrial Cluster Connection
Founding Time	1				
Firm Size	0.328***	1			
Innovation Performance	-0.017	0.048	1		
FDI Spillover Effect	0.097	0.090	0.647***	1	
Industrial Cluster	0.372***	0.672***	0.748***	0.539**	1

4.1.2 Multiple regression analysis

R^2=0.427 and adjusted R^2=0.391 are shown as adding industrial cluster and FDI spillover effects into model 3. The regression coefficient of local industrial cluster

and innovation performance is 0.247($P < 0.01$). The regression coefficient of FDI spillover effects and innovation performance is 0.183($P < 0.01$).

Table 4 Regression Analysis for External Business Network and Innovation Performance

	Dependent Variable：Innovation Performance				
Variable	Standardized Regression Coefficient	Value T	Value F	R^2	Adjusted R^2
Industrial Cluster	0.247	3.572***	5.200***	0.427	0.391
FDI Spillover Effect	0.183	2.342***			
Firm Size	0.216	3.120***			
Founded Year	0.062	0.93			

Note :*P＜0.10, ** P＜0.05, ***P＜0.01

4.1.3 Empirical analysis : local industrial cluster network and innovation performance

In order to measure the innovation performance, marks are given ranging from 1 to 7. Moreover, to examine the connection between industrial external business networks and innovation performance clusters better, the author divides the innovation performance into “low performance”(the value not more than 2),

"medium performance" (the value more than 2 but less than 4) and "high performance"(the value more than 4) and make a analysis. Table 5 indicates the univariate regression analysis between the innovation performance and all factors in the local industrial cluster. By empirical analysis for different kinds of performance, we find that higher performance firms connect more strongly with the suppliers. Among them, the maximum value F is 5.48($P<0.01$), suggesting the strong association between high innovation performance and local industrial clusters.

Take the supplier, client and competitor of local industrial cluster into consideration to make up a total local industrial cluster index and explore it. As table 5 suggests, horizontally, value F 7.05 and $P<0.01$ notably demonstrate that there is a positive relationship between local industrial cluster and firm innovation performance. Therefore, this lends support to H2, whereby local industrial clusters positively affect the innovation performance.

Table 5: The Connection between Local Industrial Cluster with the Innovation Performance

	Firm Innovation Performance								
	Low Performance		Medium Performance		High Performance		Local Industrial Cluster		Max:value F
Relationship with Suppliers	1.5	0.44	1.99	0.44	2.39	0.55			5.48***
Relationship with Clients	1.68	0.43	2.35	0.51	2.86	0.56			2.03***
Relationship with Competitors	1.60	0.33	2.42	0.42	3.15	0.39			4.96***
Founded Year	0.95	0.62	0.90	0.49	1.00	0.87	0.93	0.58	
Firm Size	1.95	0.85	2.15	0.99	2.00	1.12	2.07	0.96	
Total	4.78	1.18	6.76	1.34	5.137	.2825	6.43	1.74	7.05***
Value N	19		41		9		69		

Note: the left column shows the average values, the right column shows the standard deviations; *P＜0.10, ** P＜0.05, ***P＜0.01

4.1.4 Empirical analysis: FDI spillover effects with the innovation performance

Table 6 shows the univariate regression analysis on firms' innovation performance and the four networks in FDI spillover effects. Using regression analysis on firms with different innovation performance, the author find out that those with higher innovation performance are accompanied with more significant FDI spillover effects. Among them, value F of the the imitation effect is 1.362, that of the training effect is 1.08, and that of link effect is 1.07, they are all significant on the level of P<0.01, while value F of the competition effect is insignificant.

The four kinds of effects of FDI spillover effects, including imitation effect, training effect, competition effect and link effect, are integrated into a total index. An further analysis to examine the hypothesis is based on it. Table 6 indicates value F6 is16.00, P<0.001, supporting for the significant positive association between the FDI spillover effects with innovation performance. Thus, the results examine H3: FDI spillover effects positively affect the innovation performance. Moreover, the study illustrates a firm with a tighter connection with foreign suppliers has higher firm innovation performance, and it confirms that significant FDI spillover effects will bring high innovation performance.

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Table 6 : The Connection between FDI Spillover Effect with Innovation Performance

	Firm Innovation Performance								
	Low Performance		Medium Performance		High Performance		FDI Spillover Effect		Max:value F
Imitation Effect	3.16	1.13	4.48	1.15	5.78	0.79			1.362*
Training Effect	3.29	1.34	4.65	1.09	5.33	1.03			1.08*
Competition Effect	3.21	1.36	4.71	1.10	5.44	0.73			0.61
Link Effect	2.93	0.97	4.33	1.10	4.80	0.98			1.07*
Founded Year	0.95	0.62	0.90	0.49	1.00	0.87	0.93	0.58	
Firm Size	1.95	0.85	2.15	0.99	2.00	1.12	2.07	0.96	
Total	12.58	3.66	18.16	3.52	21.36	3.23	17.04	4.57	16.00***
Value N	19		41		9		69		

Note: the left column shows the average values, the right column shows the standard deviations; *P＜0.10, ** P＜0.05, ***P＜0.001

5.Conclusions and implications

5.1 Conclusions

Dealing with the issue about the connection among firms' external business networks, FDI spillover effects and local industrial cluster, this study employed a questionnaire survey method and data were collected from local firms in Shantou's underwear industry. The issue of external business networks and local firms' performance has attracted more and more attention, and previous studies found various results. In this study, considering the different nature and characteristics of external business networks, the results of empirical analysis partially support the hypotheses.

Firstly, firms' external business networks contribute to the innovation performance. In the competitive business market, firm's scale, continuing-learning ability, technical innovation capacity make contribution to the innovation performance. Firms need to utilize resources from all kinds of networks and learn to cooperate with other companions so that to form a new advantage in development.

Secondly, Local industrial clusters facilitate firms' innovation performance. This paper divides factors of an industrial cluster into firms, suppliers, clients and competitors to analyze and indicates a tighter association is often accompanied with the higher firm innovation performance. Whereby local industrial cluster, the association between firms and other companions in the cluster is built and it is highlighted in the innovation performance improvement. As to clients, customer demands lay the foundation of the market exploiting and point out the direction of the firm. For suppliers, the connection between them with firms' information and technology can build and adjust the relationship to meet different requirements of different phase in development. When it comes to competitors, the communication with competitors on products and technology information plays an important role in the total local industrial cluster enhancement.

Thirdly, FDI spillover effects promote the innovation performance. Most products of the underwear firms in Shantou are sold to abroad. Thus, FDI and export sales become the two main methods to connect with the foreign customers. It is worth noticing that in the examination of the FDI spillover effects, including imitation effect, training effect and link effect affect the innovation performance obviously. In the contrast, competition effect doesn't show a great influence. As a result of underwear industry's lower technology and benefit compared with high-tech industries, foreign consumers don't invest much capital into it.

5.2 Implications

This study has significant managerial implications, especially for manufacturing enterprises operating in south China by displaying insights for understanding how can a participating firm gain useful knowledge from other members in given business network to enhance its innovation performance. This research suggests that a focal firm's external knowledge access (no matter in which kind of network) and internal absorptive capability are critical to answer this question. First, be proactive to build the firms' external business networks. A firm which is active to build its own external business networks and form unions on production, research and sale with other firms will earn more chances for developing while one preferring seclusion will fail in the fierce market competition. What's more, this external network association is based on studying from each other and trusting each other. The network can't work orderly unless all members reach agreement on benefit.

In addition, pay attention to the connection among the firms in the local cluster. Firms in the cluster should give weight to the cooperation with upstream and downstream firms and the competitors. The reason is strengthening the connection of the network members and tightening the cooperation can supply more useful information and technology, which can improve the productive efficiency totally and strengthen the competitiveness entirely. As for the underwear industrial cluster in Shantou, though it has a good industrial chain, considering the homogeneity objects, it still needs to explore the possibilities for cooperation with other firms.

Last but not least, strengthen the relationship with foreign merchants. Firms should learn to utilize the foreign resources and technical spillover effects effectively as the foreign capital inflow growing and closer cooperation with foreign merchants forming. As for a further comment, stimulation of the products and technology can improve the firm's technical innovation ability, and communication with foreign managers can optimize the internal management so as to promote the firm's operation efficiency and create a better working environment.

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Entrepreneurship Education: Bridging the Gap

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Abstract

Entrepreneurship and youth are together considered a potent combination for economic advancement. The Indian government has adopted various measures to encourage entrepreneurship among youth; their success requires the establishment of a close link between relevant governmental services, and class room education. The present study aims to elicit an overall understanding of the environment of entrepreneurship surrounding today's youth, and the roles played by classroom education and career guidance. The specific objectives of the study include firstly, an evaluation of the importance of, and perceptions about, the service quality factors providing entrepreneurship education that motivates students to start business ventures; and secondly, the identification of the actual services needed for enhancing entrepreneurship education across different academic streams, so as to

augment the level of entrepreneurship. The respondents for the study were selected from Mumbai city colleges offering courses in engineering, medicine, architecture, hotel management, pharmacy, commerce, management, arts and science.

Keywords: Entrepreneurship, education, environment, facilities.

1. Introduction

Economic prosperity depends on the creation and nurturing of opportunities for successful business. Sustained economic expansion has always been driven by entrepreneurship, both in developed and emerging economies (Thorton, 1999; Baumol, 2002; Peng, 2001; Smallbone and Welter, 2001). Entrepreneurship encompasses a combination of innovative, proactive, and risk taking behaviours, that aid economic development. The driving force behind economic growth and employment generation, is considered to be entrepreneurship (Sunter, 2000). An environment that encourages positive and self-enabling perceptions of potential entrepreneurs is required for the sustenance of entrepreneurs (Kourilsky, 1985). Entrepreneurship not only requires technological advancement, but also needs innovation, enactment, assessment and extraction of new openings, in order to create goods and services. Entrepreneurship education has the capacity to increase students' desire to become entrepreneurs at some stage after completing their University education (Friendrichand Visser, 2005). Education thus, plays a vital role by instilling drive in students and enabling them to decide in favour of self-employment, and secondly, by providing knowledge that will help them stand on their own feet (Hulsink Rauch, 2010). Today, it is well-realised that, unless an

economy creates risk takers, who pursue opportunities to create jobs for their own people, stable economic growth is doubtful. A failure to achieve this would generate labourers rather than entrepreneurs. The emerging need of rapid entrepreneurship among youth, requires the support of a strong education system, which can develop creativity, knowledge, innovation, flexibility, and limited risk taking capacity. Recent times have witnessed the emergence of initiatives for supporting and promoting youth entrepreneurship and business creation (Manuese, Danha and Majoni, 2013).

Sustained economic progress is not possible without entrepreneurship. Youth entrepreneurs in emerging markets, depend heavily on informal sources of finance, but their knowledge about bank lending rates and venture capital, is extremely poor during the early stage of business. Lack of access to target consumer segments, is another restricting factor. Insufficient awareness about entrepreneurial policies, and a gap between governmental policies and action, discourages creation of new business. In the absence of a competitive and creative environment from the outset, young aspirants often turn into passive businessmen who lack ideas and imagination for designing new products, novel production processes, new business models, or tapping a new market. There is a general consensus that teaching needs to be learner-centric, and must help students to understand the elements of entrepreneurial activity (Balan and Metcalfe, 2012) Youth from different countries have varying perceptions and attitudes about entrepreneurship (Green and Pryde, 1990). Whether entrepreneurship can be taught or not, is a topic invoking much

debate and discussion in entrepreneurship academies (Fiet, 2000). That entrepreneurship behaviour *can* be taught, is indicated in some studies (Detienne and Chandler, 2004; Peterman and Kennedy, 2003), while other investigations illuminate the negative aspects of entrepreneurship education (Oosterbeek *et al.*, 2010). The education system must definitely give importance to entrepreneurship, as it will help youth to imbibe the entrepreneurial drive, and identify and explore suitable opportunities. Essentially, an environment that encourages positive and self-enabling perceptions among potential entrepreneurs, is what is required, for the birth of successful entrepreneurs (Kourilsky, 1985).

2. Objectives

The objective of the present investigation is to gain an understanding of the existing environment of entrepreneurship among youth, and to evaluate their ideas about entrepreneurship. Studies indicate that there is a well-marked difference between graduate and undergraduate entrepreneurs (Heinonen and Hytti, 2007). The specific objectives of the study are (i) to examine the importance and perceptions on the service quality factors in entrepreneurship education among students, which motivate them to take up entrepreneurship; (ii) to focus on the service quality dimensions of entrepreneurship education; (iii) to identify various service quality factors needed to be introduced, and (iv) techniques for improving entrepreneurship education across different academic streams, in order to enhance the level of entrepreneurship. The pitfalls associated with the entrepreneurship scenario in India may be summed up thus:

- Entrepreneurship education is not prioritised in any existing curriculum.
- There is no link between curriculum and government facilities provided for the purpose of entrepreneurship.
- Entrepreneurship education plays an insignificant role in actual development of entrepreneurship.
- Certain communities show more inclination towards entrepreneurship by virtue of community traits, thereby showing that education has no meaningful role yet.
- In spite of entrepreneurship education and facilities, women display less inclination towards it.
- Children coming from middle-class economic backgrounds have less inclination towards entrepreneurship.

Briefly, the present study aims to examine perceptions about the service aspects of entrepreneurship programmes, which motivate participants/students to take up entrepreneurship, and further, identify measures that need to be introduced to enhance the level of entrepreneurship.

3. Background information for the research project

Maharashtra occupies a significant position in India's manufacturing sector. According to the Annual survey of Industries (1999-2000), the state's manufacturing units generated an output that accounted for 21.40% of the

country's total output (Maharashtra Development Report). Maharashtra's manufacturing industries largely centre around refined petroleum products, basic chemicals, other chemical products, manufacturing of jewellery, musical instruments, sports goods, games, toys, spinning, weaving and finishing of textiles, sugar, cocoa, chocolates, noodles, other food products, basic iron, steel and automobiles.

The principle industrial zone in Maharashtra is the Mumbai-Thane-Pune belt, which contributes almost sixty percent of the state's output. According to the Annual Survey of Industries, Maharashtra was in a commanding position during the seventies (with a large share being contributed to the country's manufacturing sector), but faced a steep decline during the late eighties. The introduction of the New Economic Policy in the nineties however, enabled the state to regain its lost position, and improve it further. At this juncture, it is necessary to analyse the performance indicators that promoted industrial development in the state. Maharashtra has to its credit adequate power facilities, good roads, ranks third in providing various types of infrastructure (categorised as physical, financial and social), and adopts reform oriented policy incentives. The role of small scale industries (SSI) is considered important for developing entrepreneurship, and Maharashtra's SSI is a major source of employment. Furthermore, Maharashtra has achieved commendable progress in reducing the number of sick units from 8056 in 2001, to 4762 in 2003.

Although the state of Maharashtra has made considerable advancement in the field of industrial development over the past five decades, it is time to have a fresh look at the policies, programmes, industrial setup and measures adopted for creation of an entrepreneurial environment. Though fiscal and financial incentives do help new ventures, long term viability of the state would need efficient and cost effective infrastructure, skilled human resources, stable environment, good governance and entrepreneurship training. It would be meaningful to link the education system with government policies. At present, the subject of entrepreneurship is taught mainly at Commerce and Business Schools. The present study therefore, studied perceptions of entrepreneurship, and entrepreneurship education among students of streams other than Commerce and Business Management.

4. Literature Review

Manuere , F Dahha, K. Majoni, T. (2013) studied the extent of knowledge, and gender-based perceptions about entrepreneurship, in a group of Final-year students. DugassaTessemaGerba (2012) examined the status of entrepreneurship education in Ethiopian public universities. The abovementioned studies were based on analysis of the University curriculum, course syllabus and the capabilities of the faculty responsible for teaching the subject of entrepreneurship. Bakotic, Danica, Kruzic and Dejan (2010) assessed the entrepreneurship intentions of Croatian University students to find out whether they were prepared to play the market game, and face risks arising from entrepreneurship activities. Yauch and Charlene

(2011) studied the level of entrepreneurship interest in engineering students, and also their desire to become self-employed, their knowledge level about innovative products, market potential and networking with others in the industry. Salhi, Bassem, Boujelbene and Younes (2012) conducted a study on Final year students in Tunisia, and concluded that perceived desirability and feasibility are the two prime factors besides ideas and information retrieval, that contribute the most for determining predictions on entrepreneurial intention. Hunter and Murray (2012) discussed myths about entrepreneurship, entrepreneurial education in developing countries, and the reasons why very little innovation is generated by start-up ventures. Nabi, Ghulam and Rick (2008) investigated issues and challenges in the field of youth entrepreneurship. Citing research reports from England, Ireland, Australia and USA, they stressed the need for research on entrepreneurial intentions, entrepreneurship education, and training. HuqAfreen (2012) undertook a study based on in-depth interviews of potential women entrepreneurs in Bangladesh, and stated that both socio-cultural and institutional context play an important role in starting business. Mensah and Benedict (2010) highlighted the importance of entrepreneurship training in poverty stricken areas of South Africa. Azim Mohammad Tahlil (2013) observed from the in-depth study of a few successful Bangladeshi entrepreneurs, that close monitoring of the market, networking and proper preparation of business, are pre-requisites for success in entrepreneurship. Nandamuri, Prabhakar and Gowthami (2013) studied the correlation between household income and entrepreneurial orientation among final year post graduate management students. Khanka (2010) studied entrepreneurial

origin and characteristics in the North Eastern region of India, and concluded firstly, that family background does not necessarily impact inclination towards entrepreneurial pursuits, and secondly, that economically privileged individuals have greater chances to enter into entrepreneurship ventures.

Rachel, Mark and Bryan (2009) assessed the position of students and faculty members in the direction of entrepreneurship and entrepreneurship education. Allan O' Connor and Jose M. Ramos (2006) evaluated the role of foresight, innovation, enterprise and knowledge with reference to boosting of new businesses. Mandkumari and Goiwtham (2013) determined the correlation between household income and entrepreneurial orientation of management students. Field, Jayachandram and Pande (2010) explored the effects of caste and religion on women's behaviour and entrepreneurial activity. Singh and Verma (2010) compared the performance of trained and untrained entrepreneurs in the Indian states of Punjab and Haryana. Gupta (2008) studied the distinctive features of entrepreneurship in India, and discussed the emerging role of women as cultural entrepreneurs. Kumara and Sahasranam (2009) outlined the determining characteristics among business students, and examine the influence of demographic factors on the entrepreneurial characteristics of students.

5. Research design and Methodology

The main objective of the present research undertaking was to examine the importance and perceptions of service quality parameters in entrepreneurship education, among college students. Mumbai city college students from different

streams such as Commerce, Pharmacy, Architecture, IT and Engineering, were selected for the study. The nature of the data collected was related to the following dependent variable: "Do you think entrepreneurship can help in future economic growth of the country? (1) Yes (0) No. Ranking was done for questions testing respondents' knowledge about skills required for successful entrepreneurship. Examples include: What kind of parameters should be included in the curriculum while preparing a module for teaching about successful entrepreneurship to youth? Occupation was ascertained by eliciting information about parental occupation, whether business or services. Various quality parameters were included in the questionnaire issued to the respondents, such as rating or calculating importance and satisfaction factors/frequencies. Statistical tests included the Chi square test (for testing various hypotheses, such as whether preference was shown during ranking), and tests of dependence and independence. Analysis was done using SPSS and Excels software.

A limited primary survey was carried out to comprehend the factors supporting entrepreneurship among youth. The interviewer used a structured questionnaire to collect primary information. The instrument was designed to elicit extensive data about the internal and external environments of students.

The questionnaire was divided into different sections. The first section focused on the profile of the students and facilities available for setting up business. The second section dealt with the focus and education available to students while

choosing entrepreneurship as a career option. The third section was designed to facilitate a link between government and educational institution. The survey was carried out by interviewing 400 full time students from different colleges across Mumbai. Division of the sample was done according to educational backgrounds of the students.

6. Findings

Table 1.1- Age group of respondents

Age	Percent
Less than 18	9%
18 to 20	47%
21-25	38%
More than 25	7%
Grand Total	100%

A primary survey of students aged between 16 and 25 years was carried out (Table 1.1), to understand the mindset of youth towards entrepreneurship, by further utilising age, category of study, and parent's occupation. Most of the respondents (47%) fell within the age group 18-20 years, followed by the age group of 21-25 years (39%).

Table 1.2 - Gender break- up of the respondents

Gender	Percent
Female	46%
Male	54%
Grand Total	100%

The respondents constituted around 46% females, and 54% males. Further classification based on gender and variation in responses, are mentioned in the forthcoming frequency distribution tables.

Table 1.3- Educational Background of the respondents

Field of study	Percent
Architecture	16%
Banking and insurance	21%
Commerce	15%
Engineering	5%
IT	5%
Management	17%
Medical	12%
Pharmacy	9%

Maximum responses were obtained from the fields of Banking and insurance (21%), followed by students of Architecture (16%) and Management (17%).

Table 2.1: Are entrepreneurship skill natural or needs skill development?

Skills come naturally	Age				Category of study								Parent's occupation	
Key Demoghrphics	<18	>25	18 to 20	21-25	Architectu	Banking a	Commerc	Engineeri	IT	Managem	Medical	Pharma	Business	Service
no	10%	5%	48%	35%	20%	17%	18%	3%	7%	18%	8%	3%	44%	54%
yes	7%	4%	45%	42%	11%	26%	11%	8%	2%	15%	16%	5%	54%	41%
Total	9%	5%	47%	38%	16%	21%	15%	5%	5%	17%	12%	4%	48%	48%

6.4. Whether entrepreneurial skills can be imparted through education

- 57% of the respondents felt that Entrepreneurship skills do not come naturally. Of these, 48% belonged to the age group of 18 to 20 years.
- Most students belonged to the category of Architecture (20%), followed by Commerce and Management (18%). More than half of parental occupation was found to be service, rather than business (54%).
- 43% of the respondents who felt that Entrepreneurship skills are a natural trait, fell within the age groups 18 to 20 (45%) and 21-25 (42%).
- Among the various categories of study, Banking and Insurance agreed to the above statement, with a maximum response of 26%.
- Respondents whose parental occupation was business (54%), supported the concept that a person can naturally develop entrepreneur skills .

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Table 3.0 -Role of public private partnership

Do you think Public private partnership can help in developing future entrepreneurs?	Total	Percent
No	67	17%
Yes	333	83%
Grand Total	400	100%

Table 3.1 -Public private partnership necessity (responses)

PPP necesscity	Age				Category of study								Parent's occupation	
Key Demoghrphics	<18	>25	18 to 20	21-25	Architectu	Banking a	Commerc	Engineeri	IT	Managem	Medical	Pharma	Business	Service
no	13%	0%	51%	36%	16%	39%	0%	0%	3%	24%	12%	3%	54%	45%
yes	8%	5%	46%	39%	16%	18%	18%	6%	6%	15%	11%	4%	47%	49%
Total	9%	5%	47%	38%	16%	21%	15%	5%	5%	17%	12%	4%	49%	48%

- Maximum respondents felt that public private partnership was necessary for entrepreneurship development, with demographics showing maximum respondents belonging to the age group of 18 to 20 years (46%), followed by the age group of 18 to 25 years (39% responses).

- The respondents who answered negatively, corresponded to 17 %, out of which the age category of >25 years, and those with Commerce background, totally disagreed with the statement.

Table 4.0- Does teaching entrepreneurship influences in creation of business?

Do you think teaching concepts of Entrepreneurship can influence youth to take up Entrepreneurship in future?	Total
No	7%
Yes	93%
Grand Total	100%

Table4.1- teaching entrepreneurship influences in creation of business (responses)

Table 4.1- Teaching entrepreneurship influences in creation of business (responses classification as per streams)

Teaching concepts	Age				Category of study							
Key Demoghrphics	<18	>25	18 to 20	21-25	Architectu	Banking a	Commerc	Engineeri	IT	Managem	Medical	Pharma
no	7%	10%	0%	55%	14%	48%	0%	0%	0%	21%	0%	14%
yes	9%	4%	50%	37%	16%	19%	16%	5%	6%	16%	12%	3%
Total	9%	5%	47%	38%	16%	21%	15%	5%	5%	17%	12%	4%

- Maximum number of respondents (92%) felt that teaching the concepts of Entrepreneurship would be helpful in encouraging youth to take up Entrepreneurship.
- 50% of 18 to 20 year olds, and 37% of 21-25 year-olds supported the above statement. Architecture, Banking and Commerce students generally agreed with the above statement.
- Very few respondents disagreed with the above statement, and they belonged to the age group of 18 to 20 years, from the streams of Commerce, Engineering and IT.

Table 4.2 -Teaching entrepreneurship influences in creation of business (Statistical results)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.980[a]	8	.001
Likelihood Ratio	28.724	8	.000
Linear-by-Linear Association	2.870	1	.090
N of Valid Cases	399		

The statistical test of hypothesis was applied to the above statement, to test the dependence or independence of teaching concepts of entrepreneurship on the field of study of the respondents.

H_o – Indicated that teaching concepts of Entrepreneurship can influence youth to take up entrepreneurship, and is independent of field of study of respondents.

H_1 – Indicates that teaching concepts of Entrepreneurship can influence youth to take up entrepreneurship, and is dependent on field of study of respondents.

$P<0.05$, and hence, reject null hypothesis.

Hence teaching concepts of Entrepreneurship can influence youth to take up entrepreneurship is dependent upon the field of study of the respondents.

Table 5.0 Ideal age to start teaching entrepreneurship as a subject

According to you at what age a student should be exposed to the concepts of Entrepreneurship?	Total
>20 years	134
6-10 years	5
10-15years	51
15-20years	210

Table5.1 Ideal age to start teaching entrepreneurship as a subject (Statistical results)

Age for exposure	Age				Category of study								Parent's occupation	
Age	<18	>25	18 to 20	21-25	Architectu	Banking a	Commerc	Engineeri	IT	Managem	Medical	Pharma	Business	Service
>20 years	5%	4%	38%	50%	5%	31%	23%	4%	3%	13%	9%	7%	53%	44%
>6years	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	80%	20%	80%	0%
10-15years	16%	2%	49%	33%	18%	4%	6%	12%	4%	24%	24%	0%	55%	45%
15-20years	9%	5%	52%	30%	23%	20%	13%	4%	7%	18%	9%	2%	43%	53%
Total	34	18	186	153	64	85	61	20	21	67	46	14	194	193

- 53% of the responses stated that the age at which students should be exposed to the concepts of Entrepreneurship should be between 15 to 20 years, while 34% said that the age should be more than 20 years. From the demographic information, it was observed that 52% (between 18 to 20 years of age) chose maximum responses, and they had parents belonging to the business class.
- Most of the demographics corresponding to age groups, and category of study of respondents, also disagreed with the suggestion that entrepreneurship should be taught from primary schooling of an individual.

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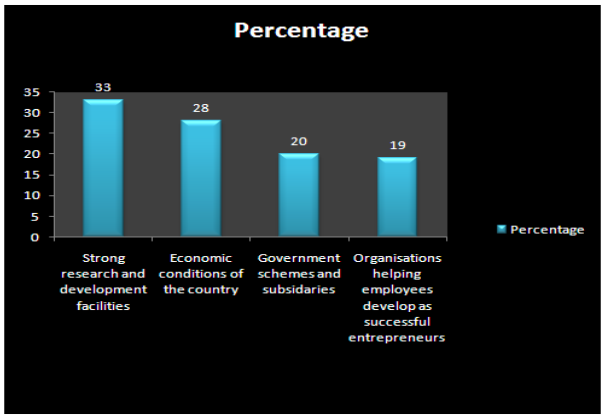
6.5. Factors considered by youth to be most important for developing entrepreneurs (see graph below):

Graph 1. Factors which help in entrepreneurship building among youth



- 33% respondents considered strong research and development facilities as the most important factor indirectly influencing people to take up Entrepreneurship, followed by Economic condition of the country (considered most important by 28% respondents).
- Organisations helping employees to develop entrepreneurs were regarded as the least important factor, with 19% positive responses (as people do not really understand the concept).
- Government schemes and subsidiaries were chosen as important factors, by 20% of the respondents.

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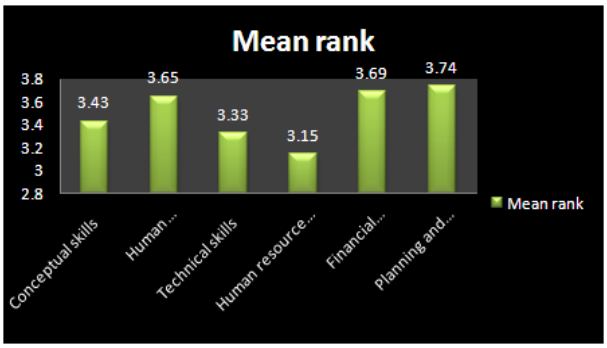
6.6. Qualities most essential in successful young entrepreneurs

- Ranking of various parameters important for an entrepreneur was done by the respondents, and the mean rank calculated.

Graph -2 Essential qualities needed for entrepreneurship building



Human resources development skills were highly ranked parameters, with a mean rank of (3.15), followed by technical skills (3.33), and conceptual skills (3.43).

Table6.0 statistical results on qualities of skills needed for building entrepreneurship

6.7 **Hypothesis testing**

H_o there was no specific preference by the people in ranking of parameters.

H_1 There was specific preference by the people in ranking of parameters

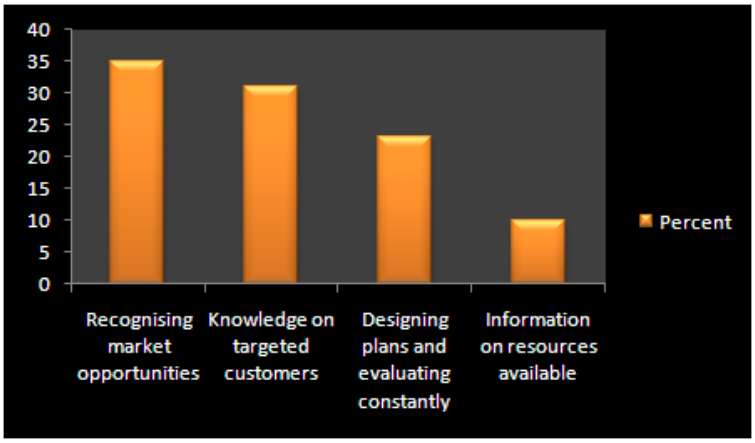
$P<0.05$ reject H_0

Hence, there is specific preference by the people in ranking of parameters.

6.8. Important aspects that should be included in the curriculum for developing a successful entrepreneurship model

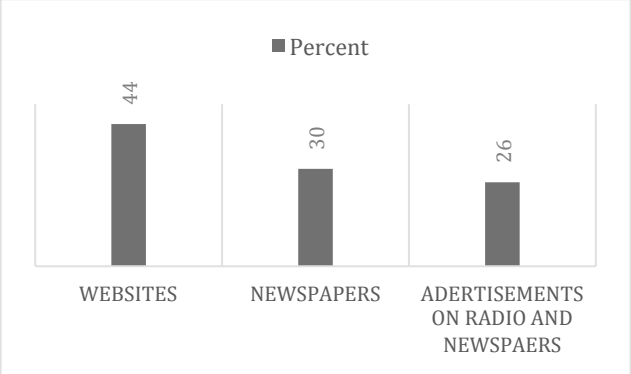
- Respondents were asked to choose the important aspects that should be included when preparing the curriculum for a successful Entrepreneurship module.
- Most of the respondents (34%) felt that various market opportunities or models should be shown, and practical examples of conducting business should be stressed upon to a greater extent.
- Knowledge about target customers should be continuously provided, and constant guidance holds the key to success.

Graph -3 Most important aspects required in the curriculum



6.9. Ways of accessing information related to entrepreneurship schemes

Graph -4 Government Sources of information students get for entrepreneurship development



- Respondents were asked about various ways through which information related to Entrepreneurship may be accessed.
- Maximum responses were for websites providing information on Entrepreneurship (45%) followed by Newspapers (30%).

Test of hypothesis was applied to determine the dependence on age of respondents.

Table7.0 Government Sources of information students get about entrepreneurship development (statistical results)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.273[a]	9	.061
Likelihood Ratio	11.464	9	.245
Linear-by-Linear Association	2.594	1	.107
N of Valid Cases	400		

a. 4 cells (25.0%) have expected count less than 5. The minimum expected count is .06.

H_0 -- Ways to access information about Entrepreneurship schemes is independent of age of respondents.

H_1 -- Ways to access information about Entrepreneurship schemes is dependent of age of respondents.

$P>0.05$ accept null H_0

Hence, ways to access information was independent of age of the respondent.

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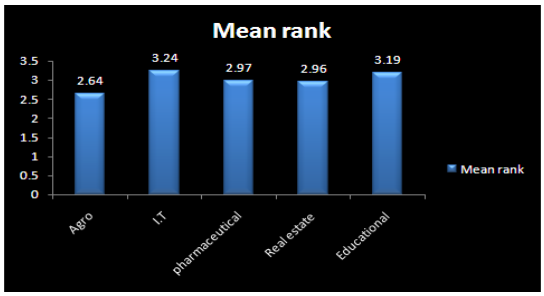
6.10. Sector of businesses in India which can be chosen for entry into entrepreneurship

- Respondents were asked to choose the sector or area of preference as an entry point. Most of the respondents opted for Agro followed by real estate business.

Graph -5 Preference of business areas for entrepreneurship



Hypothesis testing

H_0 -- Indicates no specific preference by the people.

H_1 -- Indicates specific preference by the people.

Table8.0 Preference of business areas for entrepreneurship (statistical results)

N	400
Chi-Square	22.933
Df	4
Asymp. Sig.	.000

P value < 0.05, hence, reject null hypothesis, Therefore, preference was shown by the people while ranking of various sectors.

6.11. Perception of work done by government through various Entrepreneurship programmes

Rating was requested in terms of importance and satisfaction levels of various parameters and showing the way for future opportunities of entrepreneurship promotion.

- Most of the respondents were satisfied with the information provided on various government websites, and also the awareness creating programmes.
- Respondents were not satisfied with the help provide by officials, and also assistance provided.

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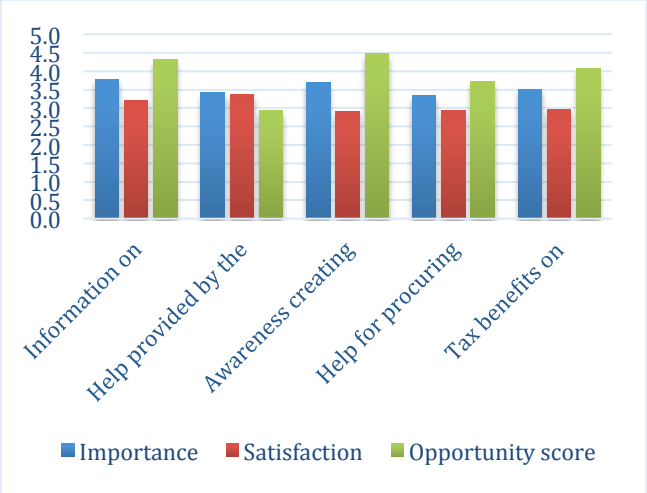
Table 9.0. Government Sources of information students get about entrepreneurship development

Parameters	Importance	Satisfaction	Opportunity score
Information on websites	3.77	3.21	4.33
Help provided by the officials	3.41	3.38	2.93
Awareness creating programs	3.7	2.92	4.48
Help for procuring technological assistance	3.33	2.93	3.73
Tax benefits on imports	3.5	2.95	4.07

Graph -6 Importance, satisfaction and opportunity score- view of respondents on government's entrepreneurship development program



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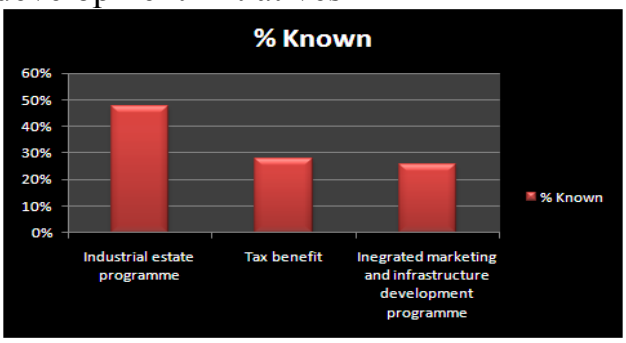
Awareness about the schemes introduced by the government

Respondents were questioned about awareness of various schemes for entrepreneurship.

- Industrial estate programme was the most well-recognised scheme followed by Tax benefits.

Graph -7 Awareness of respondents on government's entrepreneurship development initiatives



7. Limitations of the study

The instrument used for data collection in the present study was the survey method. Respondents provided data about entrepreneurship perception, government facilities and youth aspirations. All the observed relations were reported fully only by South Mumbai and one additional suburb. The other notable limitation is that the sample represents only selective colleges. Different

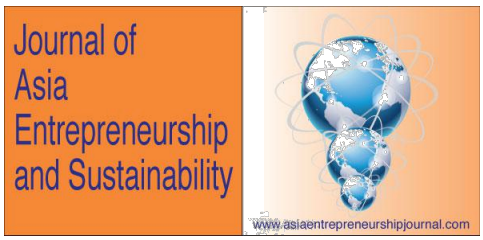
educational institution may vary in their mode of teaching about entrepreneurship, therefore, the applicability of our results must be assessed according to specific institutions. The present study would have been more meaningful if perceptions of teaching staff had also been evaluated.

8. Conclusion

It is observed from the findings of the present study, that creating a conducive environment for the implementation of Entrepreneurship education is definitely possible at the youth level, and will pave the way for successful entrepreneurship. A majority of respondents feel that teaching the concepts of Entrepreneurship would be helpful in encouraging youth to take up new business ventures. Most participants felt that the government could collaborate with private organisations to spread awareness about the subject. It was observed that students coming from a business family/background were more inclined towards building up a mindset for venturing into entrepreneurship. It is suggested that the government should plan alternatives to promote entrepreneurship programmes in colleges offering Medicine, Pharmacy and Architecture. Students should be exposed to entrepreneurship programmes beginning from age 15 to 20 years, as maximum responses supported this feature. The service quality parameters considered by most of the respondents as most important for developing entrepreneurs, included -- strong research and development facilities. The government should consider investing at the University level for providing exposure to technology, in order to kindle interest among the youth for seeking new opportunities and destinations in

their respective fields. The economic condition of the country directly influences the desire to take up entrepreneurship; therefore, more flexible laws, and less restrictions imposed on trade, will accelerate the process Respondents also feel that once their business venture is set up, balancing of human resources plays a pivotal role: these skills should therefore, be an essential part of the module for developing entrepreneurs. Further aspects that need to be included while chalking out the entrepreneurship curriculum for educational institutions, or by governmental organizations, must include modules on future market opportunities, provision of knowledge on target customers, design of futuristic plans, constant evaluation, based on changes in taxes and inflation, and easy access to information about available resources. The youth prefers accessing relevant information from websites, newspapers and radio and television advertisements. Promotional events should use various social media opportunities, websites of various universities/colleges for projecting themselves. The present study also indicated that entry points for aspiring entrepreneurs are the Agro sector, followed by real estate and pharmaceuticals. Keeping this in mind, the government should take steps to develop suitable programmes. When asked about their perceptions about the government's contribution, through various entrepreneurship programmes, the response was a least opportunity score, followed by poor technological assistance; these are therefore, the areas to be focused on to conduct successful progammes. Schemes that respondents are familiar with, include, the Industrial estate programme, tax benefits, and integrated marketing and infrastructure development

programmes. Further schemes and promotions would undoubtedly ensure success while treading the path leading to Entrepreneurial development.



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Entrepreneurial Intention In Vietnam: Same As Everywhere ?

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Abstract

This is an empirical study to investigate entrepreneurial intention among business graduates in Vietnam by applying theory of planned behaviour (TPB) (Ajzen, 1991). An exploratory factor analysis and multiple regression are used to examine the responses from 250 Vietnamese business graduates. The result was consistent with many previous studies which concluded that attitude toward entrepreneurship, subjective norm and perceived behaviour control are positively related to entrepreneurial intention. Entrepreneurial intention is significantly influenced by three components of TPB model (R^2=0.336) and perceived behaviour control remains as the best predictor (β =0.61) among the three components.

INTRODUCTION

Entrepreneurship has been recognised as one of the major forces to promote economic and social development across many countries and territories in the world. Since Schumpeter's theory on entrepreneurship (Schumpeter, 1934), many studies have proven that it has a significant contribution for economic development

which is achieved by creating employment activities, generating innovation and utilizing creativity (Timmons, 1999). Entrepreneurship can create occupational opportunities and boost national economic development (Shane & Venkataraman, 2000). The role of entrepreneurship seems to be increasing, and some academicians started discussing about the "entrepreneurial economy" (Thurik, 2009). Many other studies also confirmed that entrepreneurs play a key role in creating jobs, promoting innovation, creating economic wealth, and thus increasing the general health and welfare of the economy (Morrison A., 2003). Entrepreneurs are crucial for national and regional economic development (Sadler-Smith, 2003). In fact, entrepreneurial intention should be treated as a crucial step in establishment process of new ventures leading to entrepreneurial activities. Entrepreneurial intention captures a state of mind that directs individuals' focus to achieve a goal or something (Bird 1988). Individuals with intention to start a business are likely to carry it out (Ajzen, 1991; Fishbein and Ajzen, 1975). Many studies suggest that examining entrepreneurial intention is a meaningful approach to study actual entrepreneurial behaviour. Choo and Wong (2006) confirm that intention is the single best predictor of entrepreneurial behaviour. Moreover, Henley (2007) states that entrepreneurship is an intentional activity, in that for many those intentions are formed at least a year in advance of new venture creation suggesting a link between entrepreneurship and intention. The significance of examining entrepreneurial intention is evident from recent empirical studies in the field of entrepreneurship (Lee et al. 2011; Siu and Lo 2013). There is a rich literature on entrepreneurial intention studies (Davidsson, 1995; Kolvereid, 1997;Krueger,

2000, Kristiansen, 2004; Linan and Chen, 2009) but the motives and determinants of entrepreneurial intention still lack of empirical evidence. The main aim of this paper is to conduct an empirical study to examine the entrepreneurial intention among business graduates by applying the Theory of Planned Behaviour (Ajzen, 1991) in Vietnamese context. The structure of this paper consists of three main parts. The first part is to review the literature in order to develop rigorous hypothesis. The second part consists of research methodology and data analysis design of this empirical study with a sample of 250 business graduates and final years students in Viet Nam. The final part is the conclusion and discussion of results.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Entrepreneurial intention is the first step to understand the whole process to start up a new business. Entrepreneurial intention is central to understand the entrepreneurship process because they form the underpinnings of new organizations. (Bodewes et al, 2010). Theoretically, entrepreneurial intention is defined as one's willingness in undertaking entrepreneurial activity, or in other words become self-employed. The opposition of self-employed is becoming a waged or salaried individual (Tkachev, 1999). Pihie (2009) defines intention as a state of mind or attitude which influences entrepreneurial behaviour. Choo and Wong (Choo, 2006) define entrepreneurial intention as the search for information that can be used to help fulfil the goal of venture creation. Entrepreneurial intention can generally be defined as a conscious awareness and conviction by an

individual that they intend to set up a new business venture and plan to do so in the future (Bird, 1988; Thompson, 2009). Generally, there are two main schools of studying entrepreneurial intention which are non-psychological approach and psychological approach. Unfortunately, non-psychological approaches did not provide satisfactory results (DePillis, 2007; N. F. J. R. Krueger, M.D and Carsrud, A.L, 2000). The low explanatory power of non-psychological approaches lead to new trends of research based on behavioural intention models focusing on "attitude approach" or "psychological approach" that go beyond demographics and personality traits determining the "conscious" and "voluntary" act of new venture creation (Bui, 2011). According to Ajzen (Ajzen, 1991), researchers using these models believe that the actual behaviour is determined by intentions to perform entrepreneurial behaviour which greatly depend on the personal attitudes towards this behaviour. The more level of favourable attitude would increase the intention to be an entrepreneur. As a result, the "attitude approach" is much more rigorous to predict entrepreneurial intention than the demographic and personality trait approach (N. F. J. R. Krueger, M.D and Carsrud, A.L, 2000). Entrepreneurial intention studies based on psychological approach apply two distinct models: Shapiro's Entrepreneurial Event model and Ajzen's Theory of Planned Behaviour.

The theory of the entrepreneurial event considers firm creation as the result of the interaction among contextual factors, which would act through their influences on the individual's perceptions. In Shapero's Entrepreneurial Event (Shapero, 1975), there are three dimensions that determine entrepreneurial intention, namely

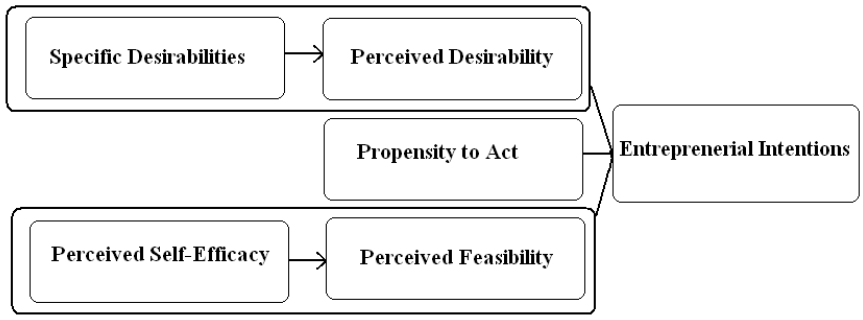
"Perceived desirability", "Perceived feasibility" and "Propensity to act". Based on this model, Shapero tried to show the importance of perception in predicting the intention to act in some specific ways. The perception requires that the behaviour must be desirable and feasible and a clear propensity to act the behaviour. The three components of Entrepreneurial Event are explained as following:

- Perceived desirability refers to the degree to which he/she feels attraction for a given behaviour (to become an entrepreneur).
- Perceived feasibility is defined as the degree to which people consider themselves personally able to carry out certain behaviour. The presence of role models, mentors or partners would be a decisive element in establishing the individual's entrepreneurial feasibility level.
- Propensity to act refers to an individual's willingness to act on decision.

All of three perceptions are determined by cultural and social factors, through their influence on the individual's values system(Shapero, 1975). Many academicians have confirmed the usefulness of this model in predicting entrepreneurial intention. In an effort to test Shapero's Entrepreneurial Event model, Krueger (N. F. J. a. B. Krueger, D.V, 1994) confirmed that three components of this model explained approximately 50 per cent the variance in entrepreneurial intentions. The best predictor in that research was perceived feasibility. Furthermore, Krueger(N. F. J. R. Krueger, M.D and Carsrud, A.L, 2000) added 2 more components into Shapero' model such as specific desirability and perceived self-efficacy. Krueger tried to explain the significance to understand the self-efficacy in relation to

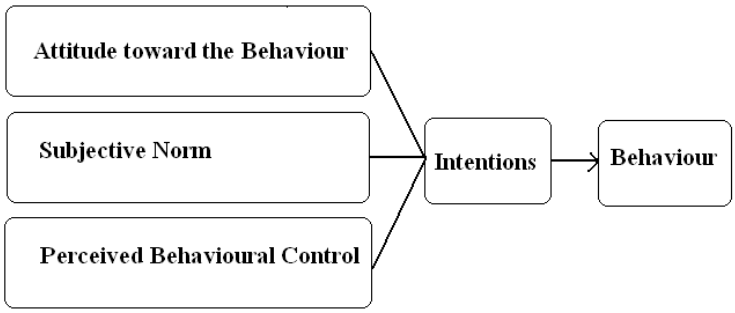
entrepreneurial intention and he also concluded that entrepreneurial usually ignore the concept of Self-efficacy in entrepreneurial researches. Self-efficacy theory explains what peoples' beliefs about their capabilities to produce effects are. A strong sense of self-efficacy strengthens human accomplishments and personal well-being in many ways (Bandura, 1977).The Krueger and Shapero's model is illustrated in the following figure.

Figure 1: Krueger and Shapero's Entrepreneurial Event (N. F. J. a. B. Krueger, D.V, 1994; Shapero, 1975).



On the other hand, the model of Theory of Planned Behaviour is the most used to research on entrepreneurial intention (Linen, Chen, 2009). According to this model, there are three conceptually independent determinants of intention towards entrepreneurship, namely attitudes towards entrepreneurship, subjective norms, and perceived behaviour control (Ajzen, 1991). This model is illustrated in figure 2 in the next page.

Figure 2: Ajzen's Theory of Planned Behviour (Ajzen, 1991).



Attitude towards performing behaviour refers to perceptions of personal desirability to perform the behaviour (Ajzen, 1991). It depends on the expectations and beliefs about personal impacts of outcomes resulting from the behaviour. According to Ajzen, a person's attitude towards behaviour represents evaluation of the behaviour and its outcome. In the context of entrepreneurship, attitude towards entrepreneurship refers to the personal desirability in becoming an entrepreneur (Kolvereid, 1996). As a result, the more expectations and beliefs towards self-employment reflect a favourable attitude towards entrepreneurship. Moreover, financial security was the most outstanding variable that made up for the attitude towards entrepreneurial intention (Gelderen, 2008). Many academicians found positive relationship between attitude and behavioural intention (Kolvereid, 1996; Krueger et al., 2000; Autio et al., 2001; Gelderen et al., 2008; Bodewes, 2010; Tegtmeier, 2012; Yang, 2013). In recent study in China, Yang (2013) confirmed that attitude represented the most effective predictor of entrepreneurial intention. In contrast, Zhang, (2015) confirmed a surprise result from a study conducted in

United States that attitude fails to generate a significant impact on entrepreneurial intention. Hence, the first hypothesis for this study is

H1: Attitude towards entrepreneurship is positively related to entrepreneurial intention.

Subjective norms refer to the person's perception of the social pressures for or against performing the behaviour in question (Ajzen, 1991). Subjective norm reflects an individual's perception that most people of importance think that he or she should not perform the behaviour (Ajzen, 1991). The Theory of Planned Behaviour assumes that subjective norm is a function of beliefs. In this sense, when a person believes that his or her referents think that behaviour should be performed, and then the subjective norm will influence his or her intention to perform that particular behaviour. Many academicians found that subjective norm was found to be positively related to intention (Kolvereid, 1996, Ajzen & Driver, 1992; Krueger et al., 2000; Autio et al., 2001; Wu, 2008; Tegtmeier, 2012; Yang, 2013; Zhang, 2015). Hence, the second hypothesis is written as

H2: Subjective norm is positively related to entrepreneurial intention.

Perceived behaviour control reflects the perceived ability to execute target behaviour (Ajzen, 1991). It relates to a person's perception on the degree of easiness and difficulties in performing such behaviour, and it is assumed to reflect

past experience as well as anticipated obstacles (Ajzen & Driver, 1992). This factor is influenced by perceptions of access to necessary skills, resources and opportunities to perform the behaviour. If a person feels that he or she has control over the situational factors, he or she may promote the intention to perform the particular behaviour. In contrast, if that person does not have control over the circumstances, he or she may not have any or less intention to perform the particular behaviour. As a result, we can say that perceived behaviour controls and influences intention to perform behaviour. Many researchers found that a link between perceived behaviour control and behavioural intention (Ajzen & Driver, 1992; Mathieson, 1991). In fact, many studies confirm a significant relationship between perceived behaviour control and entrepreneurial intention (Kolvereid, 1996; Krueger et al., 2000; Autio et al., 2001; Solitaries et al., 2006; Gelderen et al., 2008; Tegtmeier, 2012; Yang, 2013; Zhang, 2015). Remarkably, Kolvereid (1996) found that perceived behaviour control emerged as among the most significant influence on self-employment intentions among master degree students in Norway (Kolvereid, 1997). Hence, the third hypothesis is stated as

H3: Perceived behaviour control is positively related to entrepreneurial intention.

RESEARCH METHODOLOGY

This empirical research is an en exploratory quantitative research which uses Exploratory Factor Analysis and Multiple Regression Analysis to test the

hypotheses listed above. For data analysis, the research will use SPSP program to analyse data and present the outputs. The respondents in this research are business graduates and final year students in Ho Chi Minh City. The respondents come from Ho Chi Minh University of Industry, Nguyen Tat Thanh University and Saigon College of Technology. In order to have a rigorous research, a pilot study was conducted with 30 students who are about to graduate with a bachelor degree major in business administration at Ho Chi Minh University of Industry. The objective of this pilot study is to correct and clarify any mistakes or any misunderstandings in questionnaire. Totally, 250 samples were collected to use in Exploratory Factor Analysis.

According to TPB model, independent variables include attitude toward entrepreneurship, subjective norm and perceived behaviour control. Firstly, the questions relating to attitude toward entrepreneurship is to test hypothesis H1. Next, the questions relating to subjective norm are used to test hypothesis H2. Finally, the questions relating to perceived behaviour control are used to test hypothesis H3. All of questions were answered in 7 Liker-scale. The questionnaire starts with question 1 asking about the gender of respondent. Question 2 asks the respondents to indicate their highest education level which are diploma, advanced diploma, bachelor and master degree. Independent variables from The Planned Behaviour Theory model covers from question 3 to question 20. In this area, respondents rate their agreeableness with the statements in 7 Liker scale. The scale increases from “1” which is totally disagree to “7” which means totally agree with

the statements. Middle point "4" indicates neutral status with the statements. The reason to use 7 Likert scale is that it would be much more rigorous to follow Linan and Chen to evaluate the level of intention by applying Likert-Type scales with 7 items because intention is generally viewed as a "complex cognitive trait" (F. Linan, Chen, Y.W, 2009). From the literature, various questions were used by many previous studies (Autio, 2001; Franke, 2004; Kolvereid, 1997; N. F. J. a. B. Krueger, D.V, 1994).

From question 3 to question 8, they are used to measure attitude toward entrepreneurship. Question 3 "Becoming an entrepreneur will give me autonomy and freedom" measures respondent's personal desirability to be an entrepreneur to have autonomy and freedom in their lives. Question 4 "Establishing a firm will make my job more challenging and interesting" measure respondent's desirability to be an entrepreneur to make their jobs more challenging and more interesting. Question 5 "Starting up a firm will help me earn a lot of money" measure respondent's personal desirability to start up a firm to earn money. Question 6 "Becoming an entrepreneur will provide me more opportunities to develop my expertise" measure the desirability to start a new firm to enhance respondent's expertise. Question 7 "Becoming an entrepreneur will make me more confident in Vietnamese society" measure the respondent's desirability to become an entrepreneur in order to be more confident in Vietnamese society. Question 8 "Becoming an entrepreneur will give me more power in Vietnamese society" measures respondent's desirability to start up a new firm to gain more power in

Vietnamese society. From question 9 to question 14, they are used to measure subjective norm. Question 11, 12, 13 and 14 were taken from Autio's questionnaire (Autio, 2001). Question 15 "My family encourages me to set up my own firm" and question 16 "Vietnamese society actively encourages young people to become entrepreneurs" are newly added to the questionnaire. From question 15 to question 20, they are used to measure perceived behavioural control. Question 15 "I am confident that I would succeed if I started my own firm" (Autio, 2001), question 16 "I have the skills and capabilities required to succeed as an entrepreneur" (Autio, 2001), question 19 "It would be easy for me to start my own firm" and question 20 "To start my own firm would probably be the best way for me to take advantage of my education" were taken from Autio's questionnaire (Autio, 2001). Question 17 "I have the necessary resources to start my own firm successfully" and question 18 "I have the experience required to succeed as an entrepreneur" are newly added to the questionnaire.

From question 21 to question 26, they are used to measure entrepreneurial intention which is the ultimate dependent variable in this research. From the literature, entrepreneurial intention has been measure in different ways in different studies. For example, Krueger (1993) used a dichotomous variable with a yes/no statement: 'Do you think you'll ever start a business?' This is a fairly loose operationalization due to the complex nature of intention. In addition, Davidsson (1995) used a different approach which employed an operationalization of intent on an index of three questions such as 'Have you ever considered founding your

own firm?", 'How likely do you consider it to be that within one year from now you'll be running your own firm?' and "'How likely do you consider it to be that within five years from now you'll be running your own firm". In another research, Reitan (Reitan, 1996) applied a similar approach which using an index measure based on short term view and long term intentions and also on the trade-off between running one's own firm and being employed by other people. In this empirical research, Entrepreneurial Intention is measured by 6 questions from question 21 to question 26. In details, question 21 "I always want to be an entrepreneur" is to measure the determination of respondents to be an entrepreneur. Question 22 "Becoming an entrepreneur is one of my most important career objectives" is to measure career objective as an entrepreneur of respondents. Question 23 "I had a serious consideration to start up my own firm" is to measure the degree of consideration of respondents to be an entrepreneur. Question 24 "I have a detailed plan to form start up my own firm" is to measure whether respondents have a planning effort to put into their intentions. Both question 25 and question 26 were taken from Autio's research (Autio, 2001). The question 25 and question 26 is to measure the likelihood of respondent to start up a new firm within one year and with five years respectively. In order to measure entrepreneurial intention, an average index of six questions above will be calculated and be used as an indicator for entrepreneurial intention.

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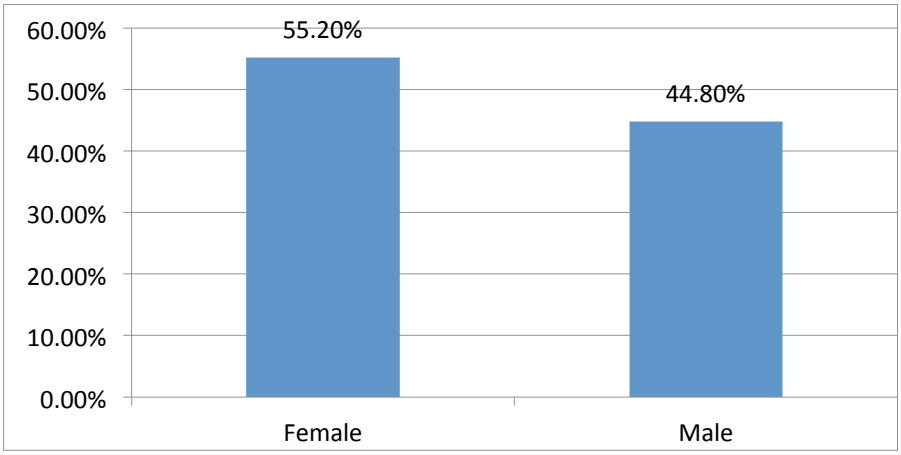
DATA ANALYSIS

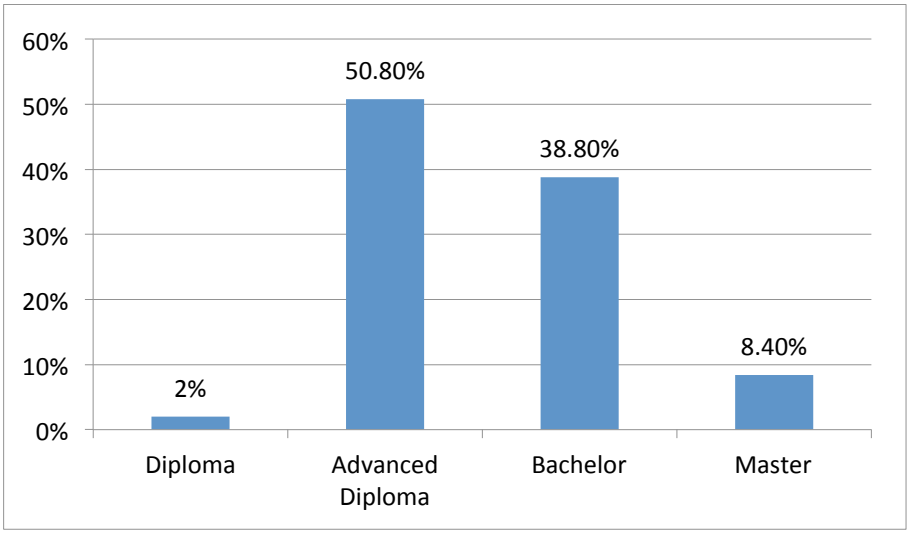
The result shows 55.2 per cent of respondent was female and 44.8 per cent was male respondents in total of 250 responses. The ratio between female and male respondent is 1.23:

Table 1.1: Respondent's gender rate comparison.



The following result presents education level of respondents. Respondents with diploma degree account for only 2 per cent. Then, 50.8 per cent of respondents are advanced diploma graduates and it has highest percentage. The third group is the respondents with bachelor degree with 38.8 per cent. Respondents with master degree account for 8.4 per cent.

Table 1.2: Respondent's education level comparison.



Next, a reliability test will be applied for 18 questions of the Theory of Planned Behaviour model to check Cranach's Alpha. According to statistical academicians (Nunnally, 1978; Peterson, 1994; Slater, 1995), Cronbach's Alpha (α) is accepted as $0.7 \leq \alpha < 0.8$, is good as $0.8 \leq \alpha < 0.9$ and is excellent as $\alpha \geq 0.9$. Moreover, any question has item-total correlation is less than 0.3 will be removed from questionnaire. The result of reliability test from SPSS shows that Cranach's Alpha is 0.862 which is good and no question has item-total correlation is less than 0.3.

After checking reliability, Exploratory Factor Analysis will be conducted by SPSS. Any questions has factor loading is less than 0.5 will be removed (Gerbing, 1988). Extraction method is principal components with rotation method is Varimax and only take components with Eigenvalue is greater or equal to 1. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity

also will be checked. The result shows that KMO is 0.852 and sig=0.000 show the appropriateness to apply Exploratory Factor Analysis for 18 questions.

Table 2.1: The first KMO and Bartlett's Test.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.852
Bartlett's Test of Sphericity	Approx. Chi-Square	1.765E3
	df	153
	Sig.	.000

Furthermore, the result shows that there are 4 components extracted at Eigenvalue is equal to 1.107 and cumulative variance is 60.63%. However, there are three questions with factor loading is less than 0.5 and they are question 20 "To start my own firm would probably be the best way for me to take advantage of my education", question 13 "My family encourages me to set up my own firm" and question 14 "Vietnamese society actively encourages young people to become entrepreneurs". As a result, these questions will be removed. The rest of the questions will be run by Exploratory Factor Analysis again. In the second exploratory factor analysis, The result shows that there are 3 components extracted

at Eigenvalue is 1.905 and cumulative variance is 59.03%. All of the 15 questions has factor loading is greater than 0.5 so it is not necessary to remove any question. In addition, KMO is 0.819 and sig=0.000 show the appropriateness to apply Exploratory Factor Analysis for 15 questions left.

Table 2.2: The second KMO and Bartlett's Test.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.819
Bartlett's Test of Sphericity	Approx. Chi-Square	1.464E3
	df	105
	Sig.	.000

In the second Exploratory Factor Analysis of the Planned Behaviour model, component 1 includes question 3, 4, 5, 6, 7, and 8 which belong to Attitude Toward Entrepreneurship in the questionnaire so their factor name will be attitude toward entrepreneurship. Component 2 includes question 15, 16, 17, 18 and 19 which belong to perceived behavior control. Component 3 includes question 9, 10, 11 and 12 which belong to subjective norms. Next, a multicollinearity test will be applied for independent variables and dependent variable. The multicollinearity test can be conducted by checking Pearson Correlation between independent variables. Attitude toward entrepreneurship, perceived behaviour control and

subjective norm, the result shows that correlation between independent variables is 0.000 and this means they are totally independent. As a result, there is no multicollinearity between independent variables so they can be put into Multiple Regression.

Table 3.1: Correlations between dependent variables.

Correlations

		EntreIntent	Attitude toward entrepreneurship	Perceived behaviour control	Subjective norm
EntreIntent	Pearson Correlation	1	.327**	.457**	.143*
	Sig. (2-tailed)		.000	.000	.024
	N	250	250	250	250
Attitude toward entrepreneurship	Pearson Correlation	.327**	1	.000	.000
	Sig. (2-tailed)	.000		1.000	1.000
	N	250	250	250	250
Perceived behaviour control	Pearson Correlation	.457**	.000	1	.000
	Sig. (2-tailed)	.000	1.000		1.000
	N	250	250	250	250
Subjective norm	Pearson Correlation	.143*	.000	.000	1
	Sig. (2-tailed)	.024	1.000	1.000	
	N	250	250	250	250

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Correlations

		EntreIntent	Attitude toward entrepreneurship	Perceived behaviour control	Subjective norm
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	Sig. (2-tailed)	.000		1.000	1.000
	N	250	250	250	250
Perceived behaviour control	Pearson Correlation	.457**	.000	1	.000
	Sig. (2-tailed)	.000	1.000		1.000
	N	250	250	250	250
Subjective norm	Pearson Correlation	.143*	.000	.000	1
	Sig. (2-tailed)	.024	1.000	1.000	
	N	250	250	250	250

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The next step is to test the goodness of fit for this multiple regression model. As can be seen in below table: Adjusted R Square=0.328 which is less than R Square=0.336.

Table 3.2: Model Summary

Model Summary

R Square	Adjusted R Square
.336	.328

a. Predictors: (Constant), Subjective norm, Perceived behaviour control, Attitude toward entrepreneurship

This result means this multiple regression model fits the data and 33.6% of the variance in the data is explained by this model. Next, F-Test will be conducted. In ANOVA table, F=41.438 and Sig=0.000. This means this multiple regression fit the data.

Table 3.3: Anova

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	149.357	3	49.786	41.438	.000[a]
	Residual	295.554	246	1.201		
	Total	444.912	249			

a. Predictors: (Constant), Subjective norm, Perceived behaviour control, Attitude toward entrepreneurship

b. Dependent Variable: EntreIntent

Moreover, the result also shows that attitude toward entrepreneurship, perceived behavior control and subjective norm all are significant at 1%. As a result, at 99%

confidence interval, this regression model is appropriate and all variables are accepted.

Table 3.4: Coefficients

Coefficients[a]

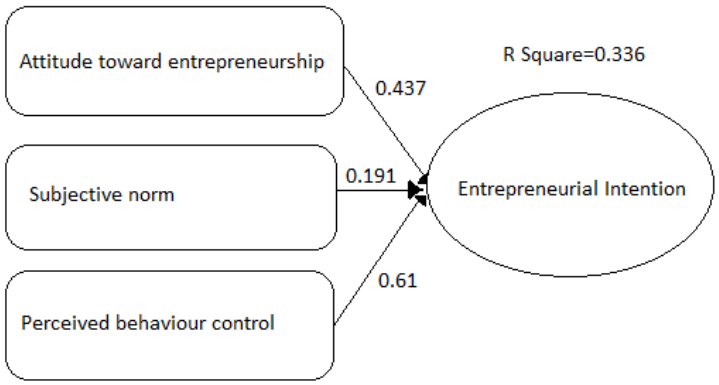
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.951	.069		71.412	.000
	Attitude toward entrepreneurship	.437	.069	.327	6.285	.000
	Perceived behaviour control	.610	.069	.457	8.788	.000
	Subjective norm	.191	.069	.143	2.755	.006

a. Dependent Variable: EntreIntent

From the result above, the relationship between entrepreneurial intention and attitude toward entrepreneurship, perceived behaviour control and subjective norm is illustrated as the following equation:

Entrepreneurial Intention=4.951+0.437(Attitude toward entrepreneurship) + 0.191(Subjective norm) + 0.61(Perceived behaviour control)

Figure 3: Multiple Regression Analysis Results of The Theory of Planned Behaviour.



CONCLUSION AND DISCUSSION

Previous studies of intention have greatly benefited by applying the theory of planned behaviour (Ajzen 1991). In the TPB, it has listed three main determinants which are subjective norm, attitude toward entrepreneurship and perceived behaviour control. The results show a consistency with the previous findings of other researchers in many different countries and a confirmation of appropriateness of TPB model in studying entrepreneurship intention.

The coefficient or β of attitude toward entrepreneurship is 0.437 so hypothesis "**H1**: Attitude toward entrepreneurship is positively related to entrepreneurial intention" is **supported**. This result is consistent with other previous studies

(Gerbing, 1988; Kolvereid, 1997; N. F. J. a. B. Krueger, D.V, 1994; Bodewes, 2010; Tegtmeier, 2012; Yang, 2013). However, Zhang (2015) confirmed that attitude toward entrepreneurship fail to generate a significant impact on entrepreneurial intention in a search conducted in United States.

The coefficient or β of subjective norm is 0.191 so hypothesis "**H2**: Subjective norm is positively related to entrepreneurial intention" is **supported**. This result is also consistent with many previous studies (Gerbing, 1988; Autio, 2001; Linan, 2005; Bodewes, 2010; Tegtmeier, 2012; Yang, 2013). However, subjective norm is the least factor which has impact on entrepreneurial intention. From cultural perspective, Vietnam belongs to collectivism culture (Hosted, 2001) so this result is not a surprise and understandable. Vietnamese business graduates pay attention to the opinion of other people surrounding them when they have intention to start up their business. In other words, if people have more favourable opinions regarding to entrepreneurship, business graduates are likely to increase their entrepreneurial intention to start their own business.

The coefficient or β of perceived behaviour control is 0.61 so hypothesis "**H3**: Perceived behaviour control is positively related to entrepreneurial intention" is **supported**. This result is consistent with many previous studies (Gerbing, 1988; Kolvereid, 1997; N. F. J. R. Krueger, M.D and Carsrud, A.L, 2000; Bodewes, 2010; Tegtmeier, 2012; Yang, 2013; Zhang, 2015). Perceived behaviour control has highest β=0.61 which means that it is the best predictor for entrepreneurship

intention. In fact, many other researchers also confirmed that perceived behaviour control is the best predictor for entrepreneurship intention (Krueger, M.D and Carsful, A.L, 2000, Linan, 2005; Zhang, 2015).

In summary, the result from multiple regression shows that attitude toward entrepreneurship; subjective norm and perceived behaviour control are significant contributors to explain entrepreneurial intention (R squared=.336, F=41.438, sig=.000). In addition, this result also confirms the appropriateness of using Theory of Planned Behaviour to study entrepreneurial intention. The R squared of this study is 0.336 and it is consistent with many previous studies. For example, Krueger established R squared of his full model is 0.543(N. F. J. a. B. Krueger, D.V, 1994). Davidsson established R squared is 0.32 but he used one year intention as dependent variable (Davidsson, 1995). Autio established R squared is 0.301 in Finland; R squared is 0.353 in Stanford; R squared is 0.214 in 0.241 in Colorado (Autio, 2001). Yang established R squared is 0.49 in China (Yang, 2013). Tegtmeier (2012) established R squared is 0.446 in Germany. In a study in US, Zhang (2015) established R squared is 0.426.

Although the results are consistent with previous studies, there are some limitations in this empirical study. First, the sample size only includes 250 business graduates from universities and colleges in Ho Chi Minh City and the data were collected at one point of time. It would be more instrumental if future studies can collect larger scale of samples at different collection data points regarding to

attitude toward entrepreneurship, subjective norm and perceived behaviour control. Probably, it would be more likely to be more effective if longitudinal can review the fundamental mechanisms behind the intention to start a business. Secondly, the target samples is business graduates and final year students and some of them may become start up their own business in the future. It would be very promissory if future researchers could study the business graduates who had actually created their own business to conduct a comparison on entrepreneurial intention and the determinants. The last limitation of this empirical study is lack of a dramatically innovative methodology. The research methodology used in this study was widely used by entrepreneurial researchers worldwide. Especially, the Planned Behaviour model has been employed to measure entrepreneurial intention many times across countries and regions and its effectiveness have been proven. However, the R square of this model is still mostly less than 0.5. Therefore, this fact suggests that there are other factors which have impact on entrepreneurial intention. Hopefully, future studies can provide more innovative methodologies in order to improve the robustness and rigorousness of entrepreneurial intention research.

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Local Networks, Enterprise Capability, and Innovation Performance – The Empirical Study on Hi-Tech Industrial Cluster in China

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Abstract

Using two types of enterprise capability as moderate variable, partnership network and sponsorship network as independent variable, research structure is constructed. And then the effect of these dimensions on innovation performance is discussed based on the survey of the Hi-Tech industrial cluster in Fujian and Guangdong. According to 140 effective questionnaires, the method of regression analysis is used to test the models. It is revealed: (1) the moderating effects of entrepreneurs charm on the relationship between two types of local network and innovation performance are significant. While technological innovation capability only has the significant moderate effect on the relationship between partnership network and innovation performance; (2) for new ventures, entrepreneurs charm has the significant moderate effect on the relationship between two types of local networks and innovation performance; (3) for non-new ventures, two types of enterprise

capability have the significant moderate effect on the relationship between partnership networks and innovation performance.

1. Introduction

The strategy of speeding up transforming the economic development pattern, improving innovation to upgrade industrial structure plays a crucial role in recent decades. Nowadays, the external environment is changing, which generates direct impact on the survival and development of the high-tech small and medium sized enterprises (SMEs). These changes post severe challenges to SMEs, such as the complex economic conditions, intense market competition, diversifications in product demands, etc. Besides, some studies has shown that only depending on own research, development and importing the equipments are far not enough for the SMEs' innovation activities. The key thing is to absorb information constantly. Continuous external learning and knowledge creation have become the secret of dealing with the environment changes, which is the guarantee of the core competence improvement. The SMEs in Fujian and Guangdong area centre on industrial cluster model. The enterprises' local networks, which are the relationship between the enterprises and the organizations in the cluster, are not only the important approaches of technology and information reciprocal between the members, but also the information sauces for the independent innovations.

However, although the new information in the external environment has the public goods' characteristics, it does not mean you master these techniques once you get

to know them. Whether these techniques turn into the innovation achievement depends on the SMEs' capability to absorb the information. The capability of absorbing the information consists of the leadership skills (entrepreneur charm) and the ability of absorbing the basic information (technological ability). In other words, the external knowledge sources and information sources are inadequate for the enterprise because capital, technology, human resource, market and other environmental factors would influence the condition of the information absorption.

Solving these problems requires entrepreneur's charm and technological innovation capability. Therefore, what local network channels can the enterprise gain information? Could these information sources and knowledge sources help the enterprise generate innovation performance? What functions do the entrepreneur's charm and technological skill have during the process of innovation achievement?

2. Literature Review and Propositions

2.1 Local network and innovation performance

According to the social capital theory, the external business network is a warehouse which has potential, static and useful information and resources. The competition and cooperation between enterprises and network members aim to absorb this warehouse's new and useful information and resources, forming competitive advantage. The closer the relationship is among the members in the external business network, the more mutually beneficial knowledge, techniques

and experience are, which helps to reduce innovation cost, increase innovation opportunities and improve the managing efficiency. Therefore, the enterprises' innovation ability is enhanced. Based on different accesses to information, Gao et al. (2008) divides connection into inter-cluster network connection and outer cluster FDI connection, both of which have a positive effect on innovation [1]. There have been a number of studies on whether enterprises' connections with different network members have the same effect on the enterprises' technological innovation. Lee and Lee (2001) classify the connections into the partnership type of bilateral relations (with suppliers and customers) and the sponsorship type of unilateral relations. After investigating 137 Korean technological startups on business network relationship's impact on innovation performance, they found partnership type of connection and sponsorship type of connection both influence enterprises' innovation performance positively [2]. According to Samson (2005), reciprocity information in the network is divided into technology development information and market strategy information. Through researching enterprises' reciprocity information with their upstream enterprises (suppliers), downstream enterprises (customers) and counterparts, and investigating 52 enterprises in Taiwan, enterprises' technological innovation has a clear positive correlation with the reciprocity information which they share with upstream and downstream enterprises [3]. Overall, enterprises' connections with different network members all generate a crucial impact on its technological innovation activities.

2.2 Entrepreneurs charm and its function

Bartlettand and Ghoshal (1997) claim that senior management capability not only lies on information research, concepts, behavior and management skills, but also on confidence, presenting yourself, the effect on other people's attitude and other spiritual and conscious level [4]. Meanwhile, entrepreneurs can create more development opportunities and build good personal and corporate image to attract more resources through own network. Moreover, the sensibility to opportunities could develop persistence and encourage people around and yourself to chase for the goals. Besides, entrepreneurs gain support from social institution, support and so on, and influence technical staffs and managers' work motivation inside the enterprise. Moreover, Waldman and Yammarin (1999) think that entrepreneurs charm has various effects on different stages of development, but it is conducive to enterprise innovation activities in general [5]. In short, the stronger entrepreneurs charm is, the better effect of enterprises' transforming local network information into innovation performance is. Hence, we put forward the following hypotheses:

H1. Entrepreneurs charm will positively affect the relationship between local network and innovation performance.

H1a: Entrepreneurs charm will positively affect the relationship between partnership network and innovation performance.

H1b: Entrepreneurs charm will positively affect the relationship between sponsorship network and innovation performance.

2.3 Enterprise's technological capability and its effects

Zaheer and Bell (2005) point out that enterprise's technological capability plays an important role in knowledge spillover and technological innovation, and entrepreneurs whose enterprise has a high level of technological capability would be more aware of the importance of knowledge spillover so as to understand the competitors' information about new product launch [6]. Furthermore, by contrasting the data from 174 enterprises in Xian, Anhui province and Huizhou, Guangdong province and researching SMEs in industrial cluster in Guangdong province, Zheng Muqiang and Xu Zonglin (2011) found that enterprises' absorptive capability regulate the innovation performance in different local networks [6]. Although the external information has public goods' property, it doesn't mean the local SMEs would gain these information resources and transform into their own innovation resources after getting access to the external information, which obviously requires technology foundation to recognize, understand, digest and transform it. In short, the stronger the enterprises' technology is, the better outcome of transforming the network information into innovation performance would be. Hence, the following hypotheses are proposed in a China context:

H2: Technological innovation capability will positively affect the relationship between local network and innovation performance.

H2a: Technological innovation capability will positively affect the relationship between partnership network and innovation performance.

H2b: Technological innovation capability will positively affect the relationship between sponsorship network and innovation performance.

3. Research Methodology

3.1. Research design and data collection

The questionnaire can be divided into three parts. They are about enterprises' foundation information, local network, capability and performance. The process of designing the questionnaire in this study is as follows:

Firstly, arrange relevant literature so as to provide a basis for designing the questionnaire. All the items in this questionnaire are from pervious literature and questions have been revised by consulting some expert in relevant areas and pretesting. Therefore, items have content validity, among which the local network (partnership network and sponsorship network) mainly takes the researches from Zhang Shiqing (2002), Zheng Muqiang and Xu Zongling (2011) as references, including 12 items of the partnership network and 8 items of the sponsorship network to measure [8-7].

Secondly, detailed content about entrepreneurs charm is summarized by Waldman and Yammarin (1999), who take perseverance of the entrepreneur, conveying

specific goal to the employees, allegiance and trust from the employees as 3 items [5]. Technological innovation capability includes research and development intensity, the number of patents, the extent of the lead, the pace of launching new products and the ratio of technical personnel those 5 items concluded by Cooke and Clifton [9]. Ultimately, the studies of Mackenize and other people (2005) indicated that technological innovation capability consists of the sale ratio of new products, the success rate of the innovative products, process innovation capability, market innovation capability and managing innovation capability [10].

3.2 Variable measures

By using SOSS16.0 software, 5 factor loadings extracted from 33 items are partnership network (Cronbach α is 0.814), sponsorship network (Cronbach α is 0.773), entrepreneurs charm (Cronbach α is 0.0.896), technological innovation capability (Cronbach α is 0.886) and enterprise's innovation performance (Cronbach α is 0.911). The result revealed that the items have quite high internal consistency and good scale reliability owing to the result of Cronbach's alpha. Combining effect analysis, we view the result of each factor loading accords with the theoretical foundation of the study, suggesting to carrying out the follow-up study.

3.3 Reliability and validity test

The field setting for our research consisted of six industries where enterprises exist in the form of industrial cluster in Fujian and Guangdong provinces[1]. Before distributing the questionnaires, the rationality of the questionnaire design has been pretest, taking account the interview and the consultation form, to make the interviewees understand correctly and quickly. Taking a research on Huizhou, Shenzhen, Dongguan, Guangzhou, Shantou and Xiamen in Fujian and Guangdong province, 200 questionnaires were distributed and 143 matched questionnaires were regained altogether. The recovery rate of the questionnaire was 71.50%. 122 questionnaires remained after eliminating 21 unqualified questionnaires. And valid response rate of the questionnaire was 61.00%. In the sample survey, there are 62 enterprises in Pearl River Delta and the percentage is 50.82%. 52 enterprises, whose numbers of employees are over 100, account for 42.62%. There are 8 enterprises that have been established for greater than or equal to 8 years, occupying 36.07%[2]. To test descriptive statistics, all dimensions of the reliability and validity test, correlation analysis and hierarchical multiple regression of this study, the SPSS 16.0 was used.

[1]Electronic and Telecommunication Equipment (41); New Material (18); Mechanical Equipment: stainless steel, toys, package printing (64); pharmaceutical industry (8).
[2]Pearl River Delta Region: Guangzhou (21); Dongguan (20); Huizhou (14); Shenzhen (7). East Guangdong Region: Shantou (46); Xiamen (14）.

4. Research Results

4.1 Regression analysis of the enterprises' capability regulation

This study utilizes the hierarchical regression to test the research hypotheses, taking the enterprise's established time and the enterprise's scale as control variable, the innovation performance as dependent variable, the local network as independent variable and the enterprises' capability as moderator. The interaction between the local network and different enterprises' capability is also put into the model to test different enterprises' capability's moderation effect on the relationship between the different local network and the enterprise innovation performance. As shown in Table 1, the regression analysis in Model1 only includes the dummy variable while two independent variables, the partnership network and the sponsorship network, are added to the regression analysis in Model 2. Model 2 shows that the partnership network and the sponsorship network positively correlate with innovation performance. The regression coefficients are 0.362 ($P < 0.01$) and 0.203 ($P < 0.05$) respectively, indicating that there is a positive correlation between local network and innovation performance.

After adding the entrepreneurs charm and technological capability to Model 3, two independent variables and two moderators all significantly affect the innovation performance. Incorporating the interaction between two local networks and entrepreneurs charm are into Model 4, the change of R^2 is 0.063, indicating that the explanation capability of Model 4 is better than Model 3's. The regression

coefficient of the interaction of entrepreneurs charm and sponsorship network is positive and significant (β =0.294, P<0.01), and the regression coefficient of the interaction of entrepreneurs charm and sponsorship network is positive and significant (β =0.261, P<0.01), indicating that the stronger the entrepreneurs charm of the Hi-Tech industries are, the better effect of converting the local network information into innovation performance will have. Hence, hypothesis 1, including hypothesis 1a and 1b, is verified. Similarly, after adding the interaction between two local networks and technological innovation capability to Model 5, the change of R^2 is 0.069. The regression coefficient of the interaction of technological innovation capability and partnership network is positive and significant (β =0.182, P<0.05). Therefore, hypothesis 2a is validated through empirical test, but hypothesis 2b is not validated.

Table 1 Multiple Regression Analyses Results (N=122)

		Enterprise Performance				
		Model 1	Model 2	Model 3	Model 4	Model 5
Dummy Variable	Enterprise Scale	0.006	0.009	0.003	0.001	-0.001
	Enterprise Period	0.187**	0.193**	0.191**	0.184**	0.180**
Independent Variable	Partnership Network		0.362***	0.352***	0.324***	0.337***

	Sponsorship Network		0.203***	0.216***	0.208***	0.205***
Moderator	Entrepreneurs Charm			0.211***	0.200***	0.209***
	Technical Innovation Capability			0.169*	0.153	0.161*
Interaction	Partnership Network × Entrepreneurs Charm				0.294***	
	Sponsorship Network ×Entrepreneurs Charm				0.261***	
	Partnership Network×Technical Innovation Capability					0.182**
	Sponsorship Network×Technical Innovation Capability					0.116
Parameter	R^2	0.073	0.293	0.342	0.405	0.411
	Adjust R^2	0.062	0.268	0.315	0.390	0.401
	the Change of R^2	0.073	0.220	0.049	0.063	0.069

Note: * P＜0.10, ** P＜0.05, *** P＜0.01

4.2 Regression Analysis Results in Enterprise's Different Stages

During different growth process, entrepreneurs charm and technological innovation capability generate different effect on the innovation performance of high-tech enterprises' innovation activities. Therefore, 51 enterprises whose enterprise's established time is greater or equal to 5 years and 71 new ventures whose enterprise's established time is less than 5 years are analyzed as follows. Table 2 reveals the regression analysis results. For new ventures, the regression coefficient for the interaction of entrepreneurs charm and partnership network is positive and significant (β =0.264, P<0.01), and the regression coefficient for the interaction of entrepreneurs charm and sponsorship is positive and significant too (β =0.192, P<0.05). However, the interactions between technology innovation and two local networks are not positive and significant. For non-new ventures, the regression coefficient for interaction of entrepreneurs charm and sponsorship network is positive and significant (β =0.196, P<0.05). Similarly, the regression coefficient for interaction of partnership network and technological innovation capability is positive and significant too (β =0.183, P<0.05).

Table 2 Comparing Multiple Regression Analyses Results of Enterprise Period

	Enterprise Performance (New Venture, N=71)		Enterprise Performance (Non-New Venture, N=51)	
	Model 1	Model 2	Model 1	Model 2
Partnership Network × Entrepreneurs Charm	0.264***		0.196**	
Sponsorship Network ×Entrepreneurs Charm	0.192**		0.124	
Partnership Network×Technical Innovation Capability		0.085		0.183**
Sponsorship Network×Technical Innovation Capability		0.124		0.148

Note: * P＜0.10, ** P＜0.05, *** P＜0.01

5. Conclusion and Discussion

The results of empirical analysis largely support the following hypotheses: (1) the moderating effects of entrepreneurs charm on the relationship between two types of local network and innovation performance are significant. While technological innovation capability only has the significant moderate effect on the relationship

between partnership network and innovation performance; (2) for new ventures, entrepreneurs charm has the significant moderate effect on the relationship between two types of local networks and innovation performance; (3) for non-new ventures, two types of enterpris' capability have the significant moderate effect on the relationship between partnership networks and innovation performance
By considering these hypotheses, the study suggests several approaches for the enterprises in the Hi-Tech industrial cluster to enhance their external knowledge and technology innovation.

First, establish and develop the local network structure. The local enterprises in Fujian and Guangdong need to construct their local business network. By extending and strengthening the interactions with the network members, the degree of interdependence and trust would be improved, enhancing the members' common interest in the external or internal network. This study result confirms that the partnership network and sponsorship network have a positive effect on innovation performance. The findings of the research on the printing and packaging industries in Shantou shows that the fierce competition forces these enterprises to develop the agglomeration mode, causing the paper industries, machinery and equipment industries, printing industries, transportation industries and other same industries or upstream and downstream enterprises gathering in Jinping District in Shantou. Meanwhile, these same industries or upstream and downstream enterprises realize resources sharing greatly.

Second, for new ventures, the entrepreneurs charm ensures that the enterprises gain different innovation resources and achieve innovation performance. The innovation resources should be multi-faceted, including the information of enterprises in the industrial cluster and the resources supported by the government or other organizations. However, all these methods depend on the entrepreneur's capability in the social activities. Ultimately, it is the entrepreneur charm that takes effect. Therefore, having entrepreneurs charm not only makes the SMEs get external resources as much as possible, but also achieve innovation performance and the enterprises grow more quickly.

Third, as for non-new ventures, the guarantee of receiving the innovation information in the partnership network and achieving innovation performance is entrepreneur charm. The information in the industrial cluster seems more charming for some Hi-Tech enterprises which have a certain research and development basis and the capability of recognizing the external information for some years. The entrepreneur charm and the capability of technology innovation assist them into innovation activities, using the useful information in the partnership to create innovation performance.

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