What is an Entrepreneur Missing? The Role of Innovation Confidence

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Abstract

Most of the previous studies on the innovation have focused on the supply-side of innovations, and the research topics have been about how to execute the change and innovation consistently, to create the innovation products and services, and to strengthen innovation competencies. This study focused on the demand-side of innovations which did not have had much spotlight relatively. Therefore, factors affecting the innovation confidence are investigated in this study. Independent variables which can affect the innovation confidence are identified through literature review, and research hypotheses are generated. In order to test the hypotheses, telephone survey was performed. This survey study results show that market or customer age, income, personal networks, opportunity recognition and capability competence can affect the innovation confidence. On the other hand, it is hardly to say that working status and regional homogeneity can affect the innovation confidence. The results of this study can be practically used how to operate the marketing activities through customer segmentation in order to perform the marketing activities of firms effectively.

Keywords: *Entrepreneurship, Innovation Confidence, Consumer Innovativeness, Innovation*

1. Introduction

Innovation is continuously competitive advantage to natures. Schumpeter announced that the role of entrepreneur is innovation through the power of economic development, and provide that the innovator to create in new tradition is creative destructor through the antiquity of destroyed task [1].

The core of corporate strategy focuses on innovation in the new era. The developed entrepreneurship has start the inauguration economy period in the 1980 to the 1990 [2]. A firm in a turbulent environment must continually innovate to remain competitive. Market, customer, competitor and technology are constantly changing. Successful entrepreneurial organizations are able to produce a stream of innovation [3].

To create in the innovative products for the excellent technology that innovative entrepreneur is virtually hard to success if the consumer do not make a purchase both the innovative products and the innovative services. Even if the innovative products is in existence, it is not that the actually consumer do not interest but that that do not purchase. After all, there is bound to fail the innovative entrepreneur. A variety of causes for these failures might be pointed out, that one of the factors fails to notice in the demand-side of innovation [4].

With the connivance of the demand-side of innovation is the existing literature. Most of the literature on the technological innovation and product innovation have been focused on the

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supply-side of innovations, the previous research are mainly about how to execute the change and innovation consistently, to create the innovative products and services, and to strengthen innovation competencies [5-6]. These researches were difficult to understand that the innovative entrepreneur must have been made the innovative products or innovative services to put a lot of budget for the R&D(research and development), but even so, it must have been explain the innovative products or innovative services which do not accept the innovativeness in market. For effectively explain that it is the innovative products and the innovative services of Success and failures in market is focused on the demand-side of innovation. With reference to the consumer's new-products and the innovative products for the adopt acceptance or the adopt speed in the supply-demand of innovation that the consumer innovativeness is mainly had been discussed. The consumer innovativeness were deemed both the non-domain and the domain about the consumer's new-products and the innovative products, these two perspective were considered that it is not change the period and the situation. But, it is lately that the consumer innovativeness was affected to change at the period and the situation from the business environment or consumer environment of sudden change. In other words, the period of environment factors that it is the personal consumer which is surrounding the environment by the macroeconomic environment, the financial environment, the political, the culture, and the local environment can change. These situations were suited the innovation confidence which it was define the change of consumer innovativeness. Therefore, factors affecting the innovation confidence are explored in this study.

In the next section of this paper, a review of literature is presented. This is followed by a descriptive of each of the innovation confidence. The third section describes the research methodology and the research hypotheses. The fourth section describes the research design followed by an analysis of the results. Finally, a discussion of results and implication is presented.

2. Literature Review

2.1. Innovation Confidence

The dictionary meanings of innovation are a new thing or a new method of doing something. Technological innovations are means the revolution through which new or improved technologies are development and bought into widespread use in the economic structure. The concept of technological innovation had been suggested Schumpeter in 1928. He pointed to the discontinuous and disruptive nature of technological change in capitalism that brings the inseparable combination of short-term instability and long-term growth. These technological innovations are used in the various concepts. For example, it is introduce that it is used in a new product or new process, develop a new market, find a nature resource or a new feedstock, and introduce a new management, an administration, a business organization [1].

Innovation was presented in the various types. Business innovation is the strategy that it is enacted across the board of business management which it is focused the technological innovation. This strategy is to plan over again, to practice, and to evaluate the existing task through the new think and the new method so as to achieve the organization goals.

Various prior studies on the innovation have been focused on the supply-side of innovations. This is followed by a descriptive of each of the illustration of representative study. 1) the property of innovative entrepreneur, 2) the attribute of innovative enterprise(the organization structure/the process/ the research and development system), 3) the budget scale of research and development expenses(weight), 4) the patent application [5-6]. However, various prior researches on the innovation confidence, it is adopt or use in the consumer of innovation trust(reliability) for the innovative products or the innovative services(ever since then, usually abbreviate to the innovative products).

Firms often success when there is advanced for the market. In other words, this is mean that the innovative products so difficult to drive the consumer adoption. So, the consumer adoption is very important. In a recently published study on the innovation confidence get shown that it is higher success more the American Entrepreneur than the European Entrepreneur about the consumer reliability [4].

The concepts of innovation confidence have based on the consumer dependability or demeanor to adopt the innovative products [5], which it is closely connected with the consumer innovativeness. The consumer innovativeness is defined that it is the degree of innovative adoption to which consumer are receptive to new products, new services, or new practices [7-8]. This trait is important to both consumers and marketers as both can benefit from right innovation. Many consumer researchers have tried to develop measurement instruments to gauge the level of consumer innovativeness.

More interest to the research on consumer innovativeness [8-9] is the identification of innovators within a specific domain or product category. These researches have nothing to do with the personal nature or property. Gatignon and Robertson (1985) [9] have noted that the innovativeness redundancy almost does not appear both a circumstance or product category. Consequently, innovativeness claims that it appeared to be different from the product category. Goldsmith and Hofacker (1991) [8] that innovativeness is defined that it is to degree which an individual is relatively earlier in adopting an innovation than other consumers of his social system. There is a need for a method to measure consumer innovativeness that can be applied to a product domain.

On the other hands, other perspective to the research [7, 10] is closed related with the consumer personality or property. And, it is consider to be occur between new idea and adopt time arise from the innovativeness difference. In the perspective, Midgley and Dowling (1978) [10] have been defined the innovativeness trait and that between an individual's innovativeness. They argue that situational effects imply a variety of situation-specific and person-specific factors like financial resources or a latent need for the innovation's perceived benefits. Joseph and Vyas (1984) [11] is use in term of open-processing innovativeness, they argue that it focus on a cognitive style, global innovativeness, which incorporates an individual's intellectual, perceptual, and attitudinal characteristics, arguing that this kind of innovativeness is an important predictor of the adoption of innovations. This is followed by the theoretical concept of each of the innovation confidence: 1) the degree to be purchase the new products and services, 2) the degree to be use the products and services in new technology, 3) the degree to be trust the new products and services.

2.2. Global Entrepreneurship Monitor (GEM)

Global Entrepreneurship Monitor (GEM) Project is the world's largest study of the entrepreneurship. Started in 1999, since then nearly 100 National Teams from every corner of globe have participated in the project, which continues to grow annually [12]. GEM is designated with prof. Michael Hay in London Business School and prof. William Bygrave in Bobson College. Initiated in 1999 as a partnership between LBS and BC, the first study covered 10 countries (U.S., Canada, U.K. France, Germany, Japan, Italia, Finland, Israel, Denmark). Since then, nearly 100 National Teams from every comer of the globe have participated in the project that continues to grow annually [13]. With the largest sample to date, this group of economies represented an estimated 74% of the world's population and 87% of the world's GDP [14].

The purpose of Global Entrepreneurship Monitor (GEM) Project is to explore and access the role of entrepreneurship in national economic growth. GEM's individual level, multi-focus focus enables a more comprehensive account of business activity compare with measure of formally registered business [15]. The first GEM survey, comprising only ten developed economies, was

conducted in 1999. Now, fourteen years later, GEM has measured entrepreneurship in 99 economies, and has gained widespread recognition as the most authoritative longitudinal study of entrepreneurship in the world [14, 16].

A key purpose of Global Entrepreneurship Monitor (GEM) is to inform academics, educators, policy makers and practitioners about the frequency and nature of entrepreneurship in and among economies worldwide. With this aim, GEM can encourage better understanding about entrepreneurship and guide decision making that can lead to better support and condition that allow this endeavor to thrive [14].

3. Research Hypotheses and Methodology

3.1. Research Hypotheses

About the adoption of innovative products, Rogers (1983) [17] defined innovativeness as "the degree to which an individual is relatively in adopting new ideas than other members of his social system. On this basis, Rogers proposed that adaptor of an innovation can be classified into five categories: innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%), and laggard (16%). Gatignon and Roberson (1985) [9] has defined the adoption of new products and services throughout a social system.

Foxall and Haskins (1987) argue that consumer innovativeness is a cognitive style tapped by adaption innovation inventory. It shows that each individual has a preferred style of creativity and decision making, which can vary from adaptive to consumer innovative. They also hypothesize that adaption innovation inventory predicts product adoption when the view product is discontinuous.

As Midgley and Dowling (1978) [10] point out, consumer innovativeness is a hypothetical construct and by definition not observable. According to them, realized consumer innovativeness is a result of innate innovativeness. Innate innovativeness finds itself on a higher, more abstract level than realized consumer innovativeness and does not correspond to a specific innovation as is the case for realized consumer innovativeness.

Hirschman (1980) [7] equates inherent novelty seeking with innovativeness, which is defined as a willingness to adopt new products, though it is not related directly to new product adoption but to a motivation to seek information about new products.

Various prior studies on the consumer innovation closely have been examined the research on the consumer behavior of innovator and non-innovator. Robertson and Kennedy (1968) [19] announced that socioeconomic characteristics of consumer appliance innovators and non-innovators within a defined social system are assessed. Such characteristics are derived from the innovation-diffusion literature and represent variables of highest predictive ability in previous research. Shaw (1965) [20] point out, a new products and services might be adopted initially by the innovators of a lower-status group and become widely diffused among its members before rising to a higher stratum. It is frequently observed that the adoption of new products by large numbers of people is preceded by acceptance by a few initial purchasers. Furthermore, certain types of people are more likely than others to accept innovations across a number of product categories (Jacoby, 1971) [21]. "Innovations" are typically defined subjectively in relation to the perceptual processes of the innovator and objectively in relation to the characteristics of the innovation [21]. Therefore, the research hypothesis is simply constructed as the follow on this paper.

H_1: The lower an age, the higher an innovation confidence.
H_2: The higher an income, the higher an innovation confidence.
H_3: The working status can affect the innovation confidence.

Joseph and Vyas (1984) [11] describe innovativeness as cognitive style of adoption and named it as global innovativeness or open-processing innovativeness, like innate innovativeness, is not related to any specific area but rather it shows a general tendency to be open to new ideas. Mowen and Minor (1998) [22] describe that it identifies three major factors that predict attitudes in innovative tendency: the higher income, the higher education level, the higher social mobility, the higher opinion leadership. Therefore, the research hypothesis is simply constructed as the follow on this paper.

H_4: The regional homogeneity can affect the innovation confidence.
H_5: The personal network can affect the innovation confidence.
H_6: The opportunity cognition can affect the innovation confidence.
H_7: The capability competence can affect the innovation confidence.

It is noteworthy that an ages and income is measured the ordinal scale, and employment, local, network, opportunity cognition, and capability competence is gauged the nominal scale.

3.2. Research Methodology and Variables

The dependent variables of innovation confidence have passed through the American Consumer, since then some centuries (U.S., U.K. *etc*.) successfully carried out the survey [5]. This study using the innovation confidence also is identified through Global Entrepreneurship Monitor (GEM) project, and this survey item has modifies on this research status. These items are measured by five-point semantic differential scale. The measure used in the study is presented Table 1.

Table 1. Measurements

Variables	GEM Code	Definition(Classification Method)	Scale
Innovation Confidence	IC	Consumer's trust and attitude (3 item)	Interval
Age	AGE7C	Age (7 classification)	Ordinal
Income	KRHHINC	Income (9 category)	Nominal
Working Status	OCCU	Working Status (7 category)	Nominal
Regional Homogeneity	KRREGION	Residential District (3 category)	Nominal
Network	KNOWENT	Entrepreneurial Network (Yes/No-2 category)	Nominal
Opportunity Cognition	OPPORT	Foundation Opportunity (Yes/No-2 category)	Nominal
Capability Competence	SUSKILL	Knowledge/Capability (Yes/No-2 category)	Nominal

4. Analysis Results

4.1. Sample and Data Collection

In order to test the data collection, telephone survey was executed on the Global Entrepreneurship Monitor (GEM) Project for Audit Population Survey (APS), this period of collecting data is from May to Jun 2010 (9 weeks). Telephone survey does business the H Research Company, with view to the research survey implement for experts into the education and training.

Telephone survey targeted in Korea(Gyeongnam province) were consist in the Busan, the Ulsan, and the Western Gyeongnam, and as a result 227 survey questionnaire were collected and used for data analysis. And, the descriptive statistics of the samples used in the study is presented Table 2.

Table 2. Descriptive Statistics of Samples

Classification	Category	Frequency(P)	Percent(%)
Gender	Male	114	50.2
	Female	113	49.8
	Total	227	100.0
Age	18-24	33	14.5
	25-34	53	23.3
	35-44	62	27.3
	45-54	49	21.6
	55-64	30	13.2
	Total	227	100.0
Working Types	Employee	51	22.5
	Contacted	34	15.0
	Owner	40	17.6
	Unemployed	9	4.0
	Retirement	4	1.8
	Student	29	12.8
	House Wife	54	23.8
	Non-Response	6	2.6
	Total	227	100.0
Income	Under 10(million/won)	25	11.0
	10 -20(million/won)	18	7.9
	20 -30(million/won)	34	15.0
	30 -40(million/won)	41	18.1
	40 -50(million/won)	27	11.9
	50 -60(million/won)	21	9.3
	60 -70(million/won)	5	2.2
	70 -80(million/won)	2	0.9
	Over 80(million/won)	12	5.3
	Non-Response	42	18.5
	Total	227	100.0
Education	Under Middle	9	4.0
	Middle	12	5.3
	High	72	31.7
	Over High	48	21.1
	College Graduate	72	31.7
	Over College Graduate	9	4.0
	Non-Speck	5	2.2
	Total	227	100.0
Regional	Busan	117	51.5
	Ulsan	44	19.4
	Gyonna	66	29.1
	Total	227	100.0

4.2. Reliability and Validity Analysis

In this study, Cronbach's α coefficient was used to verify the reliability of measurement tools. Cronbach's α coefficient has a value of 0 to 1. If Cronbach's α coefficient is more than 0.6, the reliability is reported to be high. If it is lesser than 0.6, it is considered to lack internal consistency. In the reliability analysis, Cronbach's α of all variables were 0.8. Thus, the overall reliability is higher and all configuration concepts used be seen as reliable.

In order to verify constructs between reliability and validity, the factor loading and the eigen-value were measured. If the reliability concept is higher than 0.5, it considers valid.

Parameters and limits in this study are exceeding 0.5. And, If the validly concept is higher than 1, it consider valid. Thus it has the reliability and Validity. Table 3 shows the reliability and the validity analysis.

The validity test of variables passed through the reliability tests is operated using the Spearman Rank Correlation. Spearman rank correlation is used when you have two measurement variables and one "hidden" nominal variable. The nominal variable groups the measurements into pairs; if you've measured height and weight of a bunch of people, "individual name" is a nominal variable. These statistic tools want to demonstrate whether the two measurement variables covary; whether, as one variable increases, the other variable tends to increase or decrease. It is the non-parametric alternative to correlation, and it is used when the data do not meet the assumptions about normality, homoscedasticity and linearity. Spearman rank correlation is also used when one or both of the variables consist of ranks. And it would rarely have enough data in your own data set to test the normality and homoscedasticity assumptions of regression and correlation; it decision about whether to do linear regression and correlation or Spearman rank correlation will usually depend on your prior knowledge of whether the variables are likely to meet the assumptions. Table 4 shows the correlation analysis.

Table 3. Reliability and Validity Test

Variables	Measure Item	Factor	Cronbach's Alpha
Innovation Confidence	Innovation Confidence 1	0.844	
	Innovation Confidence 2	0.866	0.763
	Innovation Confidence 3	0.787	
Eigen Value		2.082	
Index of dispersion (%)		69.397	
Cumulative Variance(%)		69.397	

Table 4. Correlation Matrix

Variable	Age	Income	Innovation Confidence
Age	1		
Income	.072**	1	
Innovation Confidence	-.231**	.123**	1

** The correlation coefficient is significant on the level of 0.01(two-sided)

4.3. Hypotheses Testing

The statistical analysis used and analyzed in this study was SPSS 20.0. This research was performed the regression analysis. Regression analysis is a statistical tool for the investigation of relationship between variables. Dependent variable mainly has measured on the interval scale, and Independent variable has measured on the ordinal scale and the nominal scale. The variable of ordinal scale is an age and an income, and the variable of nominal scale is 5 variables.

Regression analysis show that the statistics value is R^2 (20.4%) and Adjust R^2 (19.3%), and the p-value of regression model is significant the level from 0.000 to 0.001. The independent variable of working statue and regional homogeneity is not significant the level from 0.252 and 0.435. On the other hand, others independent variables all is significant the 0.05.

Research results show that market or age, income, network, opportunity recognition, and capability competence can affect the innovation confidence. On the other hand, it is

hardly to say that working status and regional homogeneity can affect confidence. Table 5 and Table 6 show the result of Hypotheses Testing.

Table 5. Results of Regression Analysis

De. Variable	Ind. Variable	Unstandardized B	Unstandardized SC	Standardized ß	t-value	p-value
Innovation Confidence	Age	-.179	.022	-.213	-8.304	.000
	Income	.023	.011	.052	2.002	.045
	Working	.013	.011	.030	1.147	.252
	Regional	-.004	.006	-.019	-.750	.453
	Network	.265	.056	.128	4.729	.000
	Opportunity	.396	.075	.141	5.276	.000
	Capability	.132	.057	.062	2.304	.021
$R=.452$, $R^2=.204$, Adjust $R^2=.193$, $F=26.259$, $p=.000$						

Table 6. Summary of Hypotheses Testing Results

Hypotheses Item	Results
H_1: The lower an age, the higher an innovation confidence.	**Adopted**
H_2: The higher an income, the higher an innovation confidence.	**Adopted**
H_3: The working status can affect the innovation confidence.	Rejected
H_4: The regional homogeneity can affect the innovation confidence.	Rejected
H_5: The personal network can affect the innovation confidence.	**Adopted**
H_6: The opportunity cognition can affect the innovation confidence.	**Adopted**
H_7: The capability competence can affect the innovation confidence	**Adopted**

5. Conclusion and Implications

Most of previous research on the innovation mainly has been focused on the supply-side of innovation, that it is about how to execute the change and innovation consistently, to create the innovative products and services, and to strengthen innovation competencies. Because, it is a different the degree of market or consumer innovativeness, the success of innovative products are closely consider that it is important from the demand-side of innovation to supply-side of innovation.

This main objective of the studies on the demand-side of innovation is explored factors affecting the innovation confidence. In order to the research, the Global Entrepreneurship Monitor (GEM) projects are used in Korea Data, and this makes an attempt the analysis of it. The followings are main results of this study.

Factors affecting the innovation confidence are examined in this study. These factors are derived market, age, income, network, opportunity, and capability competence. The personal network and information network on new technology and product can affect the innovation confidence. The working status and regional homogeneity can't affect the innovation confidence. In that case of the professional occupy, leader, and opinion leadership on innovative tendency can affect the innovation confidence. The diffusion of innovation can affect the market.

The followings are main implications of this study. In order to be success on innovation for innovative product and services, that acceptance or adoption on market is very important. These imply that when internal or foreigner firm launch an innovative product, this offered to consider the factors. The company of new product activity can effect on the innovation confidence.

These have been some limitations during this study and the following topics are recommended for future research. The first limitation is the property of local, which limited my ability to draw conclusion about each the regional statues. The future research should investigate whether the relationships found here in each region. The second limitations are invoked the measure items, which limited other the literature review. The future research should make the measure items. Finally, the model of this study considers the longitudinal data. Especially the future research should be compared with the previous data and future data. It is a very important that meaningful research result on market change is expected the future research.

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