The Impact of Innovation on the Success of Entrepreneurial Enterprises in Incubators at King Hussein Business Park

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Abstract

The study aimed at examining the impact of innovation on the success of entrepreneurial enterprises in incubators at King Hussein Business Park (KHBP). The study used the descriptive analytical approach. The target population of this study composed of (30) entrepreneurial enterprises in incubators at KHBP. The analysis unit consisted of owners, managers, and assistants of managers of the entrepreneurial enterprises with a total of (82). He also designed a questionnaire for collecting the required data. The findings of the current study indicate that innovation at its all dimensions (association of ideas, experimenting, and networking) plays a vital role in the success of entrepreneurial enterprises (growth, learning and objectives attainment) in business incubators at KHBP. Accordingly, the study proposed that business incubators should hold training courses for entrepreneurial enterprises' owners, managers and assistants of mangers to improve their innovation skills. They also should not attempt to expand their activities in the first years of their business.

Keywords: Innovation; Entrepreneurial Enterprises; Association of Ideas; Experimenting; Networking; Growth; Learning; Objectives Attainment.

1- Introduction

Innovation has become an essential factor of success in the field of business administration and economics these days (Schumpeter, 1942; Tushman and Nadler, 1986; Kleinschmidt and Cooper, 1991; OECD, 2012). The importance of innovation originates from the fact thatit has become the engine of economic growth on different levels (Verspagen, 2005; OECD, 2007). Innovation is no longer a luxury, but rather it is a necessity for all kinds of organizations in different industries. It has become essential to offer distinguished products, services, or processes and to create a competitive advantage (Lim, Schultmann, & Ofori, 2010). On the other hand, Small and Medium Enterprises (SMEs) are considered the backbone of most world economies, particularly in developing countries (Bouazza, 2015; UNIDO, 2002). SMEs contribute up to 45% of total employment and account for around 33% of national income in emerging economies (OECD, 2017). Similarly, Jordanian economy depends almost entirely on SMEs to drive its economy. Small businesses with a number less or equal 5 employees constitute about 98% of the total enterprises operating in all sectors in the Jordan (Department of Statistics, 2016). Small businesses absorb about 60% of the workforce and contribute nearly 50% of Gross Domestic Product (GDP) (Saymeh and Abu Sabha, 2014).

1.2 Statement of the Problem

Small enterprises is very important to Jordanian economy and play a very essential social role through job creation, which can lower the unemployment rate and address the demographic challenges posed by growing populations (Bouazza, 2015; Aceleanu, Trasca, and Serban, 2014).

Unfortunately, many new enterprises shrink and die due to different reasons. However, many of these enterprises in business incubators at King Hussein Business Park (KHBP) in Jordan survive and grow. In the current study, the researcher investigated the impact of innovation on the success of entrepreneurial enterprises in business incubators at KHBP in Jordan. Therefore, the ongoing study will try to answer the following questions:

- **1.** To what extend does innovation (association of ideas, experimenting, and networking) have an impact of on (the success of entrepreneurial enterprises) in incubators at KHBP in Jordan?
- **2.** To what extend does innovation (association of ideas, experimenting, and networking) have an impact on (growth) of entrepreneurial enterprises in incubators at KHBP in Jordan?
- **3.** To what extend does innovation (association of ideas, experimenting, and networking) have an impact on (learning) in entrepreneurial enterprises in incubators at KHBP in Jordan?
- **4.** To what extend does innovation (association of ideas, experimenting, and networking) have an impact on (objectives attainment) of entrepreneurial enterprises in incubators at KHBP in Jordan?

1.3 Hypotheses of the Study.

- **The Main Primary Hypothesis**: There is no significant impact at the level of ($\alpha = 0.05$) of innovation (association of ideas, experimenting, and networking) on the success of entrepreneurial enterprises (growth, learning, and objectives attainment) in incubators at KHBP in Jordan.
- **The First Sub-hypothesis**: There is no significant impact at the level of ($\alpha = 0.05$) of innovation (association of ideas, experimenting, and networking) on (growth) of entrepreneurial enterprises in incubators at KHBP in Jordan.
- **The Second Sub-hypothesis**: There is no significant impact at the level of ($\alpha = 0.05$) of innovation (association of ideas, experimenting, and networking) on learning at entrepreneurial enterprises in incubators at KHBP in Jordan.
- **The Third Sub-hypothesis**: There is no significant impact at the level of ($\alpha = 0.05$) of innovation (association of ideas, experimenting, and networking) on (objective attainment) of entrepreneurial enterprises in incubators at KHBP in Jordan.

1.4 The Study Model.

The study model includes two main variables: "innovation "as an independent variable represented by (association of ideas, experimenting, and networking) and "the success of entrepreneurial enterprises" as a dependent one represented by (growth, learning, and objectives attainment).

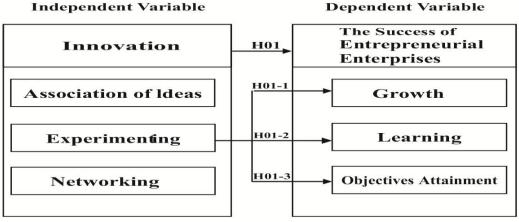


Fig. 1: The Study Model The Study Model prepared by the researcher based on some different

studies shown in table (1)

2. Literature Review and Related Previous Studies

2.1 Definition of Innovation

Innovation is considered as one of the topics for discussions and debate for many years. Innovation becomes essential for development and driving economic growth because it helps in solving of many economic problems such as unemployment (OECD, 2007).

Yet, it is difficult to find one definition for innovation because it is still one of the complex and ambiguous concepts. Schumpeter (1934) saw innovation as the introduction a new product, a method of production, the opening of a new market, finding a new source of supply of raw material, or a new change in the organization. Interestingly, Drucker, (1985) defined innovation as a specific tool of entrepreneurs to exploit change and transform an opportunity for a different business or service. On the other hand, Amabile and Conti (1996) argue that innovation begins with creative ideas and implementation of these ideas into new products and services depending on a person or a team having a good idea.

Baregheh, Rowley, and Sambrook (2009) highlighted a variety of stages in the concept of innovation in their definition. They point out that innovation consists of different stages in which organizations turn ideas into improved products, services or processes, in order to "differentiate themselves successfully" from other competitors in the same market. The multiple definitions of innovation shows the ambiguity of this concept. For the purpose of current study, the researcher thinks that innovation is turning creative ideas into tangible products and services to create a value and accordingly get profits. Therefore, innovation can be defined as the process of transforming creative ideas into real products, services and processes in order to benefit the society.

2.2 Previous Studies:

Abdulwahab (2015) explored the impact of the entrepreneurs' characteristics on small businesses at Medical Instrument Supplies Organizations in Jordan. The study results show that entrepreneurs' characteristics play a significant role in the success of small businesses. The study suggests conducting training courses related to entrepreneurs' characteristics development is a must. It also recommended conducting similar studies on different industries in Jordan. Despite of all differences between Abdulwahab's (2015) study and current study in variables and population, both of them investigate the success of small businesses.

Al-Awamreh, (2013) study aimed to determine the influence of individual creativity in improving the performance of small and medium-sized enterprises in Jordan. Descriptive and analytical approached was used. The findings indicate that originality of ideas is the most important to create new ideas and provide creative solutions to business problems. The results showed that individual creativity plays a crucial role in improving the performance of small and medium-sized enterprises.

Abou-Moghli (2011) explored the impact of entrepreneurial networks' role for the success of business development stages, the findings of the study indicate that there was statistical significant impact of entrepreneurial network in capturing opportunities, business star-up stage, and business on-going stage. Both Abou-Moghli's (2011) study and the current one explore the success of small enterprises in Jordan. Namusonge (2014) explored the influence of technological, product, and process innovations on growth of garment manufacturing industries in Nakura, in Kenya. A structured questionnaire was designed to collect data that was analyzed using Statistical Package for Social Sciences (SPSS 20). A strong link was found between innovation and growth of business. The study recommended that Kenyan government should establish a close link with SMEs in the garment manufacturing industries to encourage innovation strategies that aid the sector.

Rexhepi, (2014) examined the impact of innovation on the performance of small and medium enterprises and how to keep them competitive in this changeable world. Data was gathered from 500 different small and medium enterprises. The results indicated that SMEs in Kosovo were focusing on the improvement of existing products and incremental innovation. Rexhepi, (2014) study recommended that innovation strategies should be changed and improved to aid SMEs to achieve growth, to create value for customers and to become more competitive. Both Rexhepi's (2014) study and the current are examining the impact of innovation on success.

Mbizi, Thondhlana, and Kakava, (2013) investigates the role of innovation at small and medium-sized enterprises (SMEs) operation sustainability in manufacturing sector of Chinhoyi, in Zimbabwe. A descriptive survey was conducted as the research design. A questionnaire and interviews were used to gather relevant data. It was found that innovation was one of the major attributes that aid SMEs to keep their competitiveness. Both Mbizi's (2013) study and the current one examined the impact of innovation on success of entrepreneurial enterprises.

Lai, Nathan, Tan, and Chan. (2010) investigate the characteristics of innovation and its influence on success for female entrepreneurs in Malaysia. The study explore the associations among Innovation Conviction (ICN), Innovation Mindset (IMT), Innovation Creed (ICD), and Need for Achievement (NFA). Descriptive and inferential statistics were carried out to deal with gathered data. Findings indicated that innovation is considered as a vital factor for business success.

In the previous section, some of the studies that dealt with similar dimensions of both independent and dependent variables in different countries were presented. Despite of the different environment in which these studies were conducted, in the world of business they can be beneficial to other environments.

3. Methods and Procedures

3.1 Research Population and Analysis Unit.

The target population of this study composed of owners, managers and assistants of managers of the entrepreneurial enterprises in incubators at KHBP. The population size consisted of (30) entrepreneurial enterprises. The analysis unit consisted of owners, managers, and assistants of managers of entrepreneurial enterprises in incubators at KHBP with a total of (82). The entire population were chosen and surveyed to investigate the impact of innovation on the success of entrepreneurial enterprises.

3.2 Data Collection Methods.

Data and information were collected through a questionnaire developed by the researcher. (82) Questionnaires were distributed to the owners, managers and assistants of managers of entrepreneurial enterprises in incubators at KHBP. Only (69) questionnaires were collected representing almost 84 % response rate, but (68) were analyzed.

3.3 Research Instrument.

A structured questionnaire was developed by the researcher to determine the relationship between the independent variable and dependent variable. The questionnaire has two sections. The first section contains the demographic questions about the respondents that include (gender, age, level of education, years of experience, and type of experience). The second section consists of the statements of the questionnaire that measure innovation and success of the entrepreneurial enterprises.

3.4 Validity Test.

Validity of the study tool was checked by applying face validity concept which refers to the degree to which a test Appears to measure what is supported to measure. Therefore, a panel of referees was selected from academics and specialists to review the questionnaire's statements and verify the appropriateness of them. Five of them were internal reviewers while the rest were external.

To investigate the criterion validity, Spearman test was conducted to measure the correlation between each dimension in one variable group and the whole group. Furthermore, Spearman test is used to measure the correlation between the statements and their dimensions, to test the construct validity. The values of Spearman coefficient are more than (0.2) and less than 1. This indicates that there is a moderate to strong correlation between each item and its dimension. Also, the p-values are less than (0.05). Hence, there is a statistically significant correlation between each statements and its dimension. Therefore, the results indicate that the study tool is valid to achieve the study's objectives.

As for construct validity, the values of Spearman coefficient are more than (0.5) and less than 1, which indicates that there is a strong correlation between each dimension and the whole tool. Also, the p-values were less than (0.05). Hence, there is a statistically significant correlation between each variable and other variables.

3.5 Reliability Test.

Cronbach's Alpha is used to measure the internal consistency of statements of the questionnaire. The values of Cronbachs' Alpha Coefficient ranges from 0.820 to 0.930, and the overall score of Cronbachs' Alpha Coefficient of all factors is 0.962 indicating the internal consistency of the statements of the study's questionnaire. Because these values are more than 0.7, the instrument of questionnaire is reliable and consistent.

3.6 Data Analysis

As discussed through chapter three, the sampling unit consisted of owners, managers, and assistants of managers of (30) entrepreneurial enterprises at incubators at KHBP. From (82) questionnaires distributed, (69) questionnaires were collected but (68) were used for the statistical analysis. Accordingly, the current chapter shows the results obtained from (68) respondents. The data were gathered through a questionnaire, processed according to Statistical Package for Social Sciences (SPSS) version 22, and utilized for analysis.

4. Testing Hypotheses.

Multiple linear regressions were used to test the hypothesis. Multiple regression tests include three tables: Model Summary, ANOVA and Coefficients tables.

4.1 The Main Hypothesis.

There is no significant effect at (α =0.05) of innovation in all its dimensions (association of ideas, experimenting, networking) on success of entrepreneurial enterprises and its dimensions (growth, learning, objectives attainment).

Table (1) Multiple Li	inear Regression	for the	Impact of	"Innovation"	on	"Success	of E	ntrepreneurial
Enterprises"								

Variable	Model summary			ANOVA	4	Coefficients		
	R R^2 Adjusted R^2 F		F	Sig	В	Т	sig	
Association of Ideas	.798 ^a	.637	.620	37.432	.000 ^a	.422	3.432	.001
Experimenting						098	827	.411
Networking						.537	5.381	.000

Resulting from table (1), the ANOVA table shows that F = 37.432 and p-value = 0.000 (less than 0.05 (the level of significance)). However, the null hypothesis is rejected at ($\alpha = 0.05$). Thus, there is a significant impact of innovation in its dimensions (association of idea and networking) on success of entrepreneurial enterprises and its dimensions (growth, learning, objectives attainment). However, there is no significant impact of (experimenting) on the success of entrepreneurial enterprises. As reflected to β value, it indicates how strongly a unit change in independent variable affects the dependent variable in which the β value of the dimension (association of ideas) is (0.422) and the for the dimension (Networking) is (0.537) at ($\alpha = 0.05$). However, there is a negative correlation between (experimenting) and "the success of entrepreneurial enterprises" with β value (-0.098).

4.1.1 The First Sub-Hypothesis:

There is no significant effect at (a=0.05) of innovation in all its dimensions (association of idea, experimenting, and networking) on (growth).

Variable	Model summary		ANOVA	L	Coefficients			
	R	\mathbf{R}^2	Adjusted R^2	F	Sig	В	Т	sig
Association of	.745 ^a	.554	.533	26.540	.000 ^a	.289	2.116	.038
Ideas								
Experimenting						446	-3.382	.001
Networking						.774	6.991	.000

 Table 2: Results of First Sub Hypothesis of (Growth)

Resulting from table (2), the ANOVA table shows that F = 26.540 and p-value = 0.000 (less than 0.05 (the level of significance)). However, the null hypothesis is rejected at $\alpha = 0.05$. Thus, there is a significant impact of innovation in dimensions (association of idea and networking) on (growth). However, there is a negative impact of the dimension (experimenting) on (growth).

As reflected to β value, it gives an indication to how strongly a unit change in independent variable affects the dependent variable, in which the β value of the dimension (association of ideas) is (.289), the dimension (networking) is (.774) at ($\alpha = 0.05$), and for the dimension (experimenting) is (-.446). As shown in table (21), one unit increase in (experimenting) can significantly predict (-.446) decrease in growth. In other words, there is a positive impact of (association of ideas and networking) on growth. However, there is a negative impact of (experimenting) on (growth) of entrepreneurial enterprises.

4.1.2 The Second Sub-Hypothesis:

There is no significant effect at (a=0.05) of innovation in all its dimensions (association of idea, experimenting, and networking) on (learning).

Variable	Model summary			ANOVA	A	Coefficients		
	R	\mathbf{R}^2	Adjusted R ²	F Sig		В	Т	sig
Association of Ideas	.764 ^a	.584	.565	30.005	$.000^{a}$.462	3.507	.001
Experimenting						.095	.748	.457
Networking						.297	2.780	.007

Table 3: Results of Second Sub Hypothesis of (Learning).

Resulting from the above table (3), the ANOVA table shows that F = 30.005 and p-value = 0.000 (less than 0.05 (the level of significance)). Therefore, the null hypothesis is rejected at $\alpha = 0.05$. Thus, there is significant impact of innovation in all its dimensions (association of idea, experimenting and networking) on (learning). As reflected to β value, it gives an indication of how strongly a unit change in independent variable affects the dependent variable. β value for the dimension (association of ideas) is (0.462) and the for the dimension (networking) is (0.297) at ($\alpha = 0.05$) and for (experimenting) is (0.095). This means that there is a positive impact of (association of ideas and networking) on (learning). However, there is a weak positive correlation between (experimenting) and (learning).

4.1.3 The Third Sub-Hypothesis:

There is no significant effect at (a=0.05) of innovation in all its dimensions (association of idea, experimenting, and networking) on (objectives attainment).

Variable	Model summary			ANOVA	4	Coefficients		
	R	\mathbf{R}^2	Adjusted R ²	F	Sig	В	Т	sig
Association of Ideas	.690 ^a	.476	.451	19.351	.000 ^a	.337	2.278	.026
Experimenting						.143	1.001	.321
Networking						.299	2.494	.015

Table 4: Result of Third Sub Hypothesis.

Resulting from the above table (4), the ANOVA table shows that F = 19.351 and p-value = 0.000 (less than 0.05 (the level of significance)). However, the null hypothesis is rejected at $\alpha = 0.05$. Thus, there is a significant impact of innovation in all its dimensions (association of idea, experimenting and networking) on (objectives attainment). As reflected to β value, it indicates how strongly a unit change in independent variable affects the dependent variable, in which the β value for the dimension (association of ideas) is (0.337), the dimension (networking) is (0.299), and the dimension (objective attainment) (0.143) at ($\alpha = 0.05$). This means that there is a positive impact of (association of ideas and networking) on (objective attainment). However, there is a weak positive correlation between (experimenting) and (objective attainment).

5. Discussion and Recommendations.

The aim of the current study is to examine the impact of innovation on the success of entrepreneurial enterprises in incubators at KHBP in Jordan. The previous four chapters showed innovation and the success of new entrepreneurial enterprises. Moreover, the current study tested the main hypothesis regarding the correlation between innovation (association of ideas, networking and experimenting) and the success of entrepreneurial enterprises (growth, learning and goals attainment) as well as the three secondary hypotheses. Therefore, the chapter aims to discuss the results presented in chapter four taking into account the previous studies. Following the findings of this research key recommendations and suggestions for entrepreneurial enterprises in Jordan are proposed.

6. Conclusion

In this research, the researcher examined the impact of innovation on the success of entrepreneurial enterprises in business incubators at KHBP. The findings of the current study indicate that innovation including its dimensions (association of ideas, experimenting, and objectives attainment) plays a vital role in the success of entrepreneurial enterprises in business incubators at KHBP. Moreover, (association of ideas) is the most influential dimension on the success of entrepreneurial enterprises in general. (Networking) comes second in terms of influence on the success of entrepreneurial enterprises in incubators at KHBP. However, the study finds out that respondents have a negative attitude toward (experimenting) which is reflected in the results.

According to the opinions of the respondents, (experimenting) has a negative impact on (growth) in particular. In other words, owners, managers, and assistants of managers think that (experimenting) does not lead to the success of new entrepreneurial enterprises in general.

Further, the findings indicate that the highest impact of innovation including its dimensions (association of ideas, experimenting, objectives attainment) is on (learning) in the entrepreneurial enterprises. Innovation also impacts (objective attainment). However, there is a negative impact of innovation and its dimensions (association of ideas, experimenting, objectives attainment) on (growth) of these entrepreneurial enterprises.

7. Recommendations

Referring to the current study findings, the following recommendations are suggested for entrepreneurial enterprises and incubators at KHBP in the field of innovation and its impact on the success of entrepreneurial enterprises. The recommendation can benefit researchers, business owners, policymakers, innovation trainers, decision makers, practitioners and among others:

- Business incubators should hold training courses for entrepreneurial enterprises' owners, managers and assistants to improve their innovation skills;
- Owners, manager, and assistants of managers should not attempt to expand their activities in the first years of starting these enterprises;
- Business incubators should train entrepreneurial enterprises' owners, managers and assistants of managers on how to experiment new things in order to avoid losses and failure of their businesses;
- Business incubators should train entrepreneurial enterprises' owners, managers and assistants of managers on how to use (association of ideas and networking) in order to improve their enterprises.

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