



The success of business incubators in promoting entrepreneurial small and medium enterprises: Explorative research in tourism companies

Wardah Albukhaleq Albdurahman Alhamawndi
Almustansiriyah University
Baghdad, Iraq

Arshad Mohamed Almahmoud
University of Human Development
Sulaymaniah, Iraq
Email: hassnir@yahoo.com

Abstract

It becomes more and more clear that business incubators are of great importance in an institutions management to assist in new projects by helping them grow and by creating a pioneering environment concentrating on a comprehensive performance management system for continuous improvement. It also promotes making corrections in activities, which requires special characteristics to qualify them to build cadres capable of achieving the entrepreneurial heights needed by small and medium enterprises (SMEs). The research came from a major question: How well do businesses incubators contribute to the successful promotion of small and medium enterprises in the institution? The aim of the research was to identify the business incubators in the promotion of SME businesses in tourism companies in Iraq. To achieve this goal, the researchers determined the level of relationship and influence between the mentioned two variables through research and studies related to the hypothesis. A descriptive and analytic methodology was employed which sought to extract findings and make recommendations based on the reality of the business incubators study as an independent variable with six important dimensions which include adopting new projects, incubator growth and sustainability, techniques used, community impact, incubators services, and the provision of raw materials. In addition six dimensions represented the dependent variables in SMEs. The study hypothesis of the business incubators of the projects upheld providing distinguished experts in the management of projects to help them transform their innovations and inventions so as increase performance with goals set by experts. Recommendations were made to support the hypothesis.

Keywords: business incubators, entrepreneurship, Iraq, performance management system.

Introduction

Institutions seek success by managing their business properly to enable them to continue and meet the growing challenges faced daily. This has led to the emergence of an important concept in the organizations management -business incubators- as the preferred tool to provide assistance in new projects management as it facilities the multiplicity of beneficiaries, which provide a suitable place and an environment to promote and activate the growth of projects. They forge an entrepreneurship environment based on the principle of strengthening leadership capabilities throughout the organization and reduce the discrimination between the employees and managers, and between strategy makers and its implementers and also between professional cadres and professional teams. It focuses on the performance management system for continued improvement and work of systemic corrections in its total range of activities. For this purpose,



organizations need qualities that qualify them to build capable cadres of achieving the needed success for SMEs. The organization of business incubators have proved to be efficient tools for economic development, although they did not achieve early optimistic expectations for job creation and enhancing the success of the small or medium project leaders.

The researchers' presented the ideas in the research in four topics. The first section presents the methodological framework for research, the second section presents the two variables (business incubators and entrepreneurs of small and medium projects), while the third presents the practical side of the research and finally, the conclusions based on the recommendations of the two researchers.

Section one / methodological framework of research

First: Research problem: Organizations strive to leave the traditional thinking of organization and keep up with the continuous development and change. Organizations also look for new management ideas to face the environmental pressures and seek to possess the competitive advantages and maintain their position in the market and to get best results from project management. Because the pioneering thinking in business incubators was built through mechanism development that embrace creative ideas and high-growth projects for their importance in achieving the economic development of the country, this has led to the creation of new mechanisms to support these SMEs. The current research problem represents in the following question:

- How can business incubators contribute in promoting the success of small and medium enterprises entrepreneurship?

Second: Research importance: The theoretical and practical aspects of the study deal with the two variables that are business incubators and small-medium enterprises. These are of interest to many researchers because of their impact on the organizations performance and success, and to take advantage of the best possible opportunities and also develop appropriate plans for the future, they face challenges to achieve the desired goals. This importance can be summarized as follows:

- Lack of adoption of business incubators subject to achieving the entrepreneurship success in a dynamic environment, whether small or medium.
- Benefitting from the results of this research in the investment of all efforts, expertise and skills to achieve the desired progress in a competitive environment and test relationships and influence between the research variables in order to enhance scientific efforts and to investigate previous studies.

Third: Research objectives: The main objective of testing business incubators is to promote the entrepreneurship of SMEs and derive several qualitative objectives:

- 1- Evaluating the importance of the two variables in analyzing the selected sample responses.
- 2- Highlighting the nature of correlation and influence relationship between each of the variables.
- 3- Conclusions and recommendations of the research may contribute in creating more interest in business incubators by the research ministry and it may also promote the success of entrepreneurship of SMEs.

Fourth: the hypothesis diagram of the research:

The diagram shows the main and sub-variables of the current research and the nature of the relationship and impact between them and the direction of those relations as shown in figure 1:

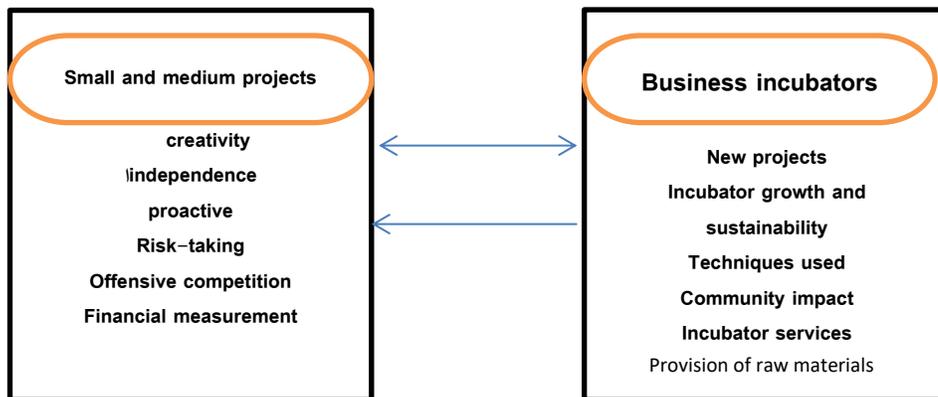


Figure 1. Hypothesis diagram of the research

Fifth: Research Hypothesis: The research hypotheses are formulated according to the questions of the problem and the hypothesis scheme of the current research is as follows:

- a- **The first main hypothesis:** “There is a significant statistical relationship between business incubators (their combined dimensions) and the success of entrepreneurship, whether small or medium (combined dimensions) in the research sample in the Ministry.
- b- **The second main hypothesis:** “There is a significant effect between business incubators (their combined dimensions) and the success of entrepreneurship whether small or medium (combined dimensions) on the research sample in the Ministry.

Sixth: statistical tools for research: The field aspect of the research depended on a number of statistical tools for data analysis using SPSS vr.23 and AMOS vr.23 as follows:

- 1- Computational means, standard deviations and relative importance.
- 2- The Cronbach Alpha coefficient for variable business incubators was (0.995), whereas the paragraphs variable entrepreneurial of small and medium enterprises was (0.995).
- 3- Simple correlation coefficients (Pearson).
- 4- A Structural modeling equation (SEM).

Seventh: research field: The researcher identified the research community as a field to test the hypothesis represented by Tourism Companies, which works to accomplish a lot of projects and services provided to the community and development in the sector of small and medium enterprises, This enables them to use modern methods in their implementation and thus contribute to supporting the Iraqi economy. The application of a random sampling method was used where (167) of the directors working in that ministry were selected to form the research sample.



Section two / theoretical framework

First: Business incubators

- 1- **The concept of business incubators:** The concept of incubators is due to the process of supporting business projects, which contributes to the successful acceleration and development of the start-up of new projects through the provision of resources and services. The incubator is defined as an established institution which has a legal entity status and direct relationship with entrepreneurs who wish to establish projects that target a complete package of services, facilities, consultancy and supporting mechanisms in order to overcome all the difficulties associated with the start-up phase. (Khalid, Gilbert & Huq, 2014).

They have been identified as units that support start-up with physical space, capital, investment, administrative services and communication networks so they can survive. In contrast, the economy is expected to receive benefits like new jobs that generate high added value (Gstraunthaler, 399:2010). It is known as a body that helps and encourages creativity, or as a specific geographical location, where services are offered. In this definition, an incubator is a specific body consisting of a controlled physical or tangible area that assists new start-ups and new projects so that they are able to be self-supporting using traditional project resources (Yee, 4:2009).

- 2- **The importance of business incubators and their objectives:** The small and medium business incubator provides services to projects inside and outside its borders. The importance of incubators in general can be summarized as follows according to Alsesi, (37: 2009).
 - a- Developing the traditions and culture of the entrepreneurial projects, and developing the skills of managing the small and medium projects.
 - b- Sponsoring new projects in the establishment, growth and success phase, thus creating direct and indirect job opportunities.
 - c- Achieving communication and interdependence between projects within the incubator, and large and medium projects through contracting to supply components, parts, spare parts and services.
 - d- Providing appropriate funding opportunities according to project conditions.

Business incubators seek to achieve a set of objectives, most notably the following based on Tulchin and Shortall (2008: 2) and Turan and Cicek, (2007:205).

- a- Accessing capital: incubators can develop relationships with investors, government programs, and their groups to finance small and medium enterprises.
- b- Reducing start-up costs for small businesses and give them a chance to succeed by embracing them in the early stages.
- c- Providing scientific advice and feasibility studies for small and medium projects.
- d- Creating a new generation of young entrepreneurs and provide them with all the qualities to excel and succeed in their projects so that they in turn to provide more job opportunities after they leave the incubator, and expand their projects.
- e- Linking large projects to small projects as feeder projects.
- f- Sponsoring new projects in different phases from start-up to growth, developing new ideas for creating and finding new projects, or helping to expand existing projects.



- 3- **Dimensions of business incubators:** Measures were provided to know the incubation process, which can be measured in relation to performance of business incubators themselves, and the impact of incubator activities on projects (Ganamotse, 2011:6).
- a- **Adopting new projects:** Some business incubators are used as a means of selecting new projects with a possibility to grow in the main incubator. As long as it facilitates the start-up process and focuses on developing new ideas, it connects projects to market needs and usually assisted to overcome problems, find partners and raise funds. Governments often use business incubators as tools to guide some projects that fail in the market and work to provide support and protection, and work to increase and diversify projects (Chandra, 2007; 18) in the service of the national economy with a problem of turning the idea into a market success (Ganamotse, 2011:7).
 - b- **Incubator growth and sustainability:** Incubator growth and sustainability is one of the key challenges that incubator management must face. Managers ability has been measured in the light of their ability to increase capital, human capital and other resources that can be used to manage the incubator and promote economic with technical investment in society (Scaramuzzi, 2002:28), and establishing a joint venture fund within the incubator that provides resources to get new ideas for individuals, products or business to sustain the performance of activities (Daft & Marcic, 2007: 300).
 - c- **Techniques used:** The technologies used in these small and medium projects are relatively simple and labor-intensive, also very low cost compared to advanced technologies that require significant capital intensity In addition, the raw materials associated with these technologies are often available and the labor skills necessary to manage them are simple and expensive (Dawodi & Qayshosh, 2010:8). Also, facilities that do not use technology will negatively affect its continuity and leadership in a particular field, even if it has a financial means (Kortel et al., 2010:12).
 - d- **Community impact:** Accepting the incubator socially is one of the basic aspects for the success of its work. The society must be convinced that the business of the incubator is a reflection of their economic and social aims. The civil society organizations and chambers of commerce and industry can play an active role in this field by establishing specialized networks to promote the incubators work (Ali, 2009: 218).
 - e- **Incubator services:** The extent in which the project can distinguish its products can ensure the success of the new project and also able to distinguish its services and practices from competitors through the services provided by the incubator. When new projects have a new product that have the advantage of moving first, this gives them a certain competitive edge, which ensures their success on the basis of providing good services and overcoming difficulties (Damanpour, 1996:35).
 - f- **Provide appropriate financial resources:** The new project is able to attract investors because of their role in providing new suitable opportunities to obtain funds and invest in the appropriate areas and thus the ability of these new projects to show the prospects of profits based on a new financial plan which contributes to the development of economic projects (Ganamotse, 2011:8).

Second - entrepreneurial concept of small and medium enterprises

Small projects are projects where the number of employees is (1-50), while the medium project is (51-500) employees. This text focuses on small and medium-sized enterprises managed by the owner and the number of employees is (1-50). The international organizations and different countries involved in these projects differ in the definition of small



and medium-sized enterprises because of the different standards used in the definition. The United Nations Industrial Development Committee defines small and medium enterprises with 20 to 99 employees (Katz & Green ,2007:6).

They usually needs community support and assistance in the administrative, finance and technical fields that they do not own, like (marketing, legal consultants, costs, quality, training, accounting, technology and informatics, research and development, finance and productivity) (Glancey et al., 1998:262).

The small and medium-sized projects are also defined as a project that carries out an economic activity with individual ownership and relatively small amounts of capital are used. There are a limited number of employees and local resources are used (Ahmed & Barham, 2008: 85).

– **The importance and characteristics of small and medium projects:**

The number of entrepreneurial projects within the industry is very large and the number of productivity units is small and convergent, which makes it difficult to monopolize the market by one or a few pioneer projects except in exceptional and temporary circumstances (Dawodi & Qayshosh, 2010: 7).

The importance of the projects sector lies in the ability to achieve many economic and social goals which contribute effectively in the development process. It is also doubling the gross net profit value to the economy, support economic growth, stimulate economic and creates jobs, encouraging innovation and creativity, attracting foreign investment, using available resources, expanding markets, developing human and technical resources and enhancing competitiveness. There is also the ability to create competitive productive clusters that deepen capital formation through production lines and interconnection networks to increase the value added resulting from these industries (Glancey et al., 1998: 250).

These projects are specified by many characteristics imposed by the nature of the small projects, and others came as a result of the natural development of societies, it must therefore have the following characteristics according to Aldori and Salih (2009: 331):

- a- The project has a relatively small market share.
- b- The project is personally managed by its owners.
- c- The independent O with its owners controls the business activities and is affected by external circumstances by financial obligations.

– **Entrepreneurship dimensions of small and medium projects:**

Below are six dimensions depending on the study of Galetic and Milovanoviic (2009) which are creativity, independence, proactive, offensive competition, risk-taking and financial measurement, that work to improve entrepreneurial performance.

- a- Creativity:** Creativity is a source of business value creation and increased production, in the field of patents or research and development, which cannot adequately reflect the growth performance of these projects (Liang et al., 2010: 1178) how to buy something when it is cheap and take it to the market where it is sold for higher return, and take advantage of creating the right opportunities for creativity and innovation so that it is imperative for entrepreneurs working in new markets to pursue sustainable development (Cato et al , 2008: 318).



- b- Independence:** Dess et al., (2008:432) explained the desire to work independently is a goal for future vision and entrepreneurial opportunity. Independent business units within the project are often used to raise strengths in new areas. Kroopp, (2008:104), also identifies opportunities behind current project capabilities, encouraging and developing new projects in order to exploit market opportunities; and projects to achieve an independent social status (Singer et al., 2009; 3)
- c- Proactive:** The projects efforts to get new opportunities. Proactive projects monitor trends and try to find out what the customers need and recognize demand changes or face the emerging problems that can lead the country to new business opportunities. It is also called the extent to which the projects are trying to lead the competitors instead of walking behind other projects, such as producing new products or services, adopting new technologies and management techniques (Henderson & Pachulia, 2009:17).
- d- Risk-taking:** These projects are characterized by taking risks as entrepreneurial behavior in which future results are highly uncertain or unsecured. The risk factors can be varied such as financial, psychological and social aspects as well as personal and business risks. Here, it is the entrepreneurial role to set the prospects for success and failure in the project.
- e- Offensive competition:** Offensive competition has been known as projects that work better than competitors in the industry. They often struggle against competitors, reducing prices and sacrificing profits for long-term market share (Dess et al , 2008:436). It is an important dimension of the entrepreneurial orientation, especially for new projects, which are estimated to be more likely to fail than their competitors (Lee & Peterson, 2000:5).
- f- Financial measurement:** Entrepreneurship works to increase the average per capita income. These allows for the formation of wealth for individuals in development gains by increasing the number of participants, thereby achieving equitable distribution of development gains (Alnajar & Alali, 2008:24). The entrepreneur who provides financing should have a broad knowledge of the institutions and projects conditions while intending to finance in terms of creating the necessary financing in a new way to serve and develop the sector in which he operates away from the traditional means of financing, that depends mainly on high interest rates then help them invest money, time, effort and experience (Yahia, 2010: 26).

Section three / practical framework

First: Examine the normal distribution of data

Kolmogorov-Smirnov test: This test is validated by a P-value which is acceptable when it is greater than 0.05. This test shows whether the data distribution is significantly different from the normal distribution or similar to it.



Table 1. Natural distribution test of research variables.

P valu	Kol-smi	SME entrepreneurial	P valu	Kol-smi	Paragraphs of variable business incubators
0.1	0.095	S1	0.07	0.086	S1
0.06	0.099	S2	0.06	0.070	S2
0.1	0.092	S3	0.08	0.093	S3
0.07	0.097	S4	0.07	0.070	S4
0.20	0.060	S5	0.1	0.080	S5
0.18	0.078	S6	0.2	0.063	S6
0.20	0.075	S7	0.06	0.067	S7
0.08	0.065	S8	0.2	0.058	S8
0.06	0.068	S9	0.1	0.089	S9
0.07	0.081	S10	0.1	0.077	S10
0.2	0.090	S11	0.06	0.084	S11
0.29	0.073	S12	0.3	0.088	S12
0.08	0.074	S13	0.2	0.055	S13
0.06	0.068	S14	0.08	0.077	S14
0.06	0.067	S15	0.09	0.073	S15
0.2	0.099	S16	0.06	0.068	S16
			0.09	0.081	S17
			0.08	0.0893	S18

The results of the statistical analysis above in table (1) of the Kolmogorov-Smirnov test show that the value of the test for both variables is greater than the significance (5%). This means that natural distribution data of the research sample do not differ significantly and variables data were taken from a community whose data follow the normal distribution.

Second: Statistical description

SPSS vr.23 program was used to illustrate descriptive statistical analyzes (mean, standard deviation and relative importance). This paragraph contains two main subjects:

First: The six dimensions (adoption of new projects, incubator growth and sustainability, techniques used, community impact, incubator services, providing appropriate financial resources) for the business incubator variable, which contains (18) paragraphs. Table (2) below refers to the arithmetic meanings, standard deviations, relative importance and their order related to the sample point of view regarding the business incubator variable with the level of the answer. It reflects the general arithmetic mean in the table mentioned (3.30) which are higher than the hypothetical mean of (3). The standard deviation was (1.27), and the following is a diagnosis of the sub-variables.



Table 2. Values of means, relative importance, standard deviations and its order, level and direction of the sample respondents answers in general with respect to business incubators x(n=167).

Order of importance	Level of answer	Direction of answer	Relative importance	Standard deviation	mean	paragraphs
2	high	agree	68%	1.35	31.4	Projects adopting
4	moderate	agree	66%	1.26	3.29	Incubators growth and sustainability
6	moderate	agree	64%	1.23	3.22	Techniques used
1	high	agree	68%	1.27	3.24	Community impact
5	moderate	agree	65%	1.32	3.24	Incubator services
3	moderate	agree	66%	1.25	30.3	Provision of raw materials
				1.27	3.30	Total business incubators

It was achieved an average of (4.13) for the adoption of projects around the hypothetical mean shown in table (2), the standard deviation confirms the harmony with the dispersion above the average in the answer, respectively (1.35) with the level and order of relative importance (68%)(2). Moreover, the direction and level of the response was (agreed)(high), while the incubators growth and sustainability achieved a general mean (3.29) around the hypothetical mean shown in table (2). The standard deviation confirms the harmony of the above average dispersion in the answer, respectively (1.26), the level and order of relative importance (66%)(4), and the direction and level of response were (agreed) (moderate), while the mean of techniques used achieved (3.22) around the hypothetical mean shown in table (2). The harmony of dispersion above average in the answer was confirmed by the standard deviation respectively (1.23), the level and order of relative importance (64%)(6), and the direction and level of the response was (agreed)(moderate). As for the social effect mean was achieved (3.24) around the hypothetical mean as shown in the table above, and the level of the answer was (agreed)(high). The mean of the incubator services achieved (3.24), around the hypothetical mean shown in table (2), the harmony of dispersion above average in the answer was confirmed by the standard deviation respectively (1.32), the level and order of relative importance (65%)(5) and the direction and level of the response were (agreed)(moderate). The mean to provide appropriate financial resources achieved (3.33) around the hypothetical mean shown in table (2) and this confirms the standard deviation in harmony with the dispersion above the average in the answer, respectively (1.25), the level and order of relative importance (65%)(3), the direction and level of the answer was (agreed)(moderate).

Second: With its sixth dimensions (creativity, independence, proactive, risk-taking, offensive competition and financial measurement), for the small and medium projects entrepreneur variable which contains (16) items. Table (3) below refers to the mean, the standard deviations and the relative importance of the sample regarding the second variable. The general mean in the table reflect (3.48), it is higher than the hypothetical mean (3), and the general standard deviation (1.26). The following is a diagnosis of the sub-variables:

Order of importance	Level of answer	Answer direction	Relative importance	Standard deviation	mean	paragraphs
5	Moderate	Agree	66%	1.27	3.30	creativity
6	Moderate	Agree	65%	1.23	3.23	independence
4	High	Agree	69%	1.32	3.45	proactive
2	High	Agree	70%	1.23	3.50	Risk-taking
1	High	Agree	71%	1.41	3.54	Offensive competition
3	high	agree	69%	1.34	3.47	Financial measurement
				1.26	3.48	Total projects development



Creativity achieved a mean of (3.30) around the hypothetical mean as shown in table (3), the standard deviation was confirmed by the above-average dispersion harmony in the answer respectively (1.27). The level and order of relative importance (66%)(5) and the direction and level of the response were (agreed)(moderate). The independence achieved a mean of (3.23) around the hypothetical mean shown in table (3), the harmony of dispersion above average in the answer was confirmed by the standard deviation respectively (1.23), the level and order of relative importance (65%)(6), the direction and level of the response were (agreed)(moderate).

The proactive achieved a mean of (3.45), around the hypothetical mean shown in the table above, and the harmony of dispersion above the average in the answer is confirmed by the standard deviation (1.32), and the level and order of relative importance (69%)(4), and the direction and level of answer were (agreed)(high), while the risk-taking achieved a mean of (3.50) around the hypothetical mean shown in the table above, the harmony of dispersion above average in the answer was confirmed by the standard deviation, respectively (1.23), the level and order of relative importance (70%)(2), and the direction and level of the answer was (agreed)(high). The offensive competition achieved a mean of (3.54) around the hypothetical mean shown in the table above, and the harmony of dispersion above the average in the answer is confirmed by the standard deviation respectively (1.41), and the level and order of relative importance (71%)(1), and the direction and level of answer was (agreed)(high).

The financial measurement achieved a mean of (3.47), around the hypothetical mean shown in the table above and the standard deviation was confirmed by the harmonic distraction above average in the answer, respectively (1.34), and the level and order of relative importance (69%)(3) and the direction and level of answer it was (agreed)(high).

Second: test hypotheses:

For the purpose of testing the hypotheses, the researchers depend on two statistical methods of correlation matrix (simple correlation coefficient) and (structural equation modeling) as follows:

Correlation hypotheses: There is a significant statistical relationship between business incubator (their combined dimensions) and the success of entrepreneurial of small and medium projects among the research sample in the ministry.

Table (4) indicates the correlation assumptions assumed by the first major correlation hypothesis, with this result the main correlation hypothesis can be achieved between the explanatory variable (business incubators) and (entrepreneurial of small and medium projects) the responsive variable. The correlation coefficient (**9820) and a significant level (0.01).

importance %	Mor al relations	Y6	Y5	Y4	Y3	Y2	Y1	vari ables
	no .							
%100	6	**0.996 (0.00) P	**0.994 (0.00) P	**0.992 P(0.00)	**0.993 P(0.00)	**0.993 P(0.00)	**0.992 P(0.00)	X1
%100	6	**0.982 (0.00) P	**0.982 (0.00) P	**0.985 P(0.00)	**0.990 P(0.00)	**0.984 P(0.00)	**0.983 P(0.00)	X2
%100	6	**0.986	**0.988	**0.984 P(0.00)	**0.976 P(0.00)	**0.984 P(0.00)	**0.989 P(0.00)	X3



		(0.00) P	(0.00) P					
%100	6	**0.985 (0.00) P	**0.984 (0.00) P	**0.981 P(0.00)	**0.977 P(0.00)	**0.982 P(0.00)	**0.986 P(0.00)	X4
%100	6	**0.975 (0.00) P	**0.966 (0.00) P	**0.968 P(0.00)	**0.976 P(0.00)	**0.975 P(0.00)	**0.972 P(0.00)	X5
%100	6	**0.976 (0.00) P	**0.972 (0.00) P	**0.973 P(0.00)	**0.978 P(0.00)	**0.982 P(0.00)	**0.977 P(0.00)	X6
	6	6	6	6	6	6	No.	Core relations
	100 %	%100	%100	%100	%100	%100	Importanc e	

- **Impact hypotheses:** Impact hypotheses were tested by using structural modeling equation through (AMOS ve.23) program; while the second main hypothesis said (there is significance between the business incubators and the success of the small and medium projects entrepreneurship in the research sample of the ministry). This hypothesis is divided into two hypotheses: There is a direct impact on the dimensions of business incubators (adoption of new projects and incubator growth and sustainability also the techniques used) on the entrepreneurship of small and medium projects, so we built a model to test those hypotheses as shown in table (5) and figure (2). By reviewing the data and indicators of the table did not achieve the structural validity of the scale (the conditions of conformity quality) and here it is necessary to carry out the modification procedures assumed by the measurement and estimation processes of the models.

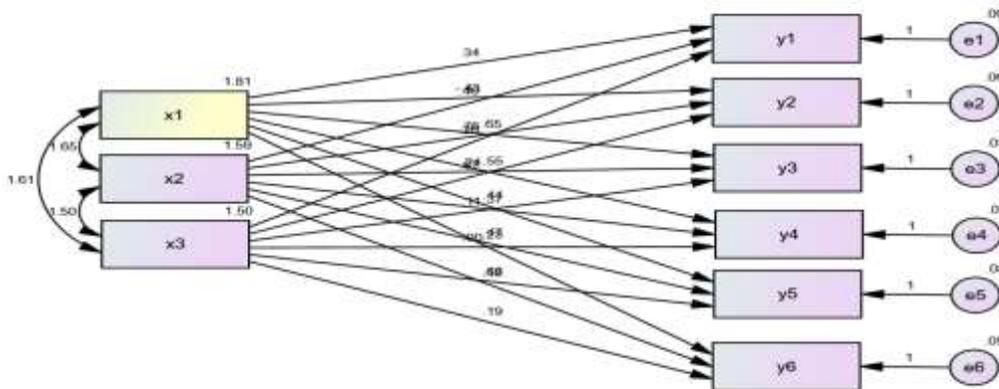


Figure 2. Structural equation model

Table 4. Conformity quality indicators by structural modeling

comparison	Indicator value	indicator
More than 10	18.2	X ² /df
Less than 0.9	0.787	GFI
Less than 0.9	0.361	AGFI
Less than 0.08	0.323	RMSEA
More than 0.9	0.950	CFI
More than 0.9	0.950	NFI

It is clear that the indicators are weak and unacceptable by observing the indicators within the model (RMSEA), the value of the error indicator is greater than the allowable limit, so the required modifications to the model are therefore made through the recommendations of the modification indicators (modification indices) which includes either deleting or modifying the high contrast variants within the model, so that the final model after modification as in figure 3 and table 6.

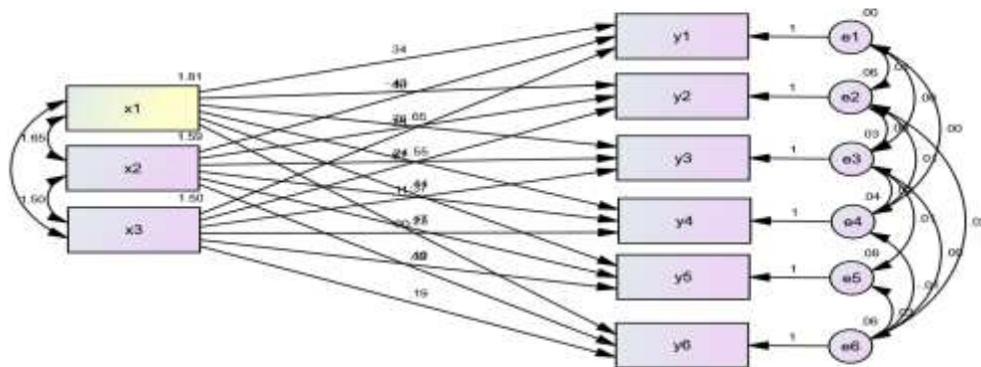


Figure 3. Modified Structural Equation (SEM) for Business Incubator Dimensions (Adoption of New Projects, Incubator Growth and Sustainability, and Techniques Used in SME Entrepreneurship Dimensions)

Table 6. Conformity Quality Indicators after Adjustment

comparison	Indicator value	indicator
Less than 5	2.08	X ² /df
Bigger than 0.09	0.989	GFI
Bigger than 0.90	0.906	AGFI
Less than 0.08	0.078	RMSEA
Bigger than 0.80	0.999	CFI
Bigger than 0.90	0.998	NFI

According to figure (3) of conformity quality indicators it is clear that the model has good values for conformity quality indicators and fulfilled the acceptance conditions.

The second sub-hypothesis stems from the second main hypothesis: There is a direct impact on the dimensions of business incubators (societal impact and the provision of appropriate financial resources and incubator services) on the dimensions of entrepreneurship, in order to test this hypothesis; a model has been constructed to illustrate this, as shown in table (7) and figure (4) below display the quality indicators of conformity according to the structural modeling equation of the three business incubator dimensions on the second variable.

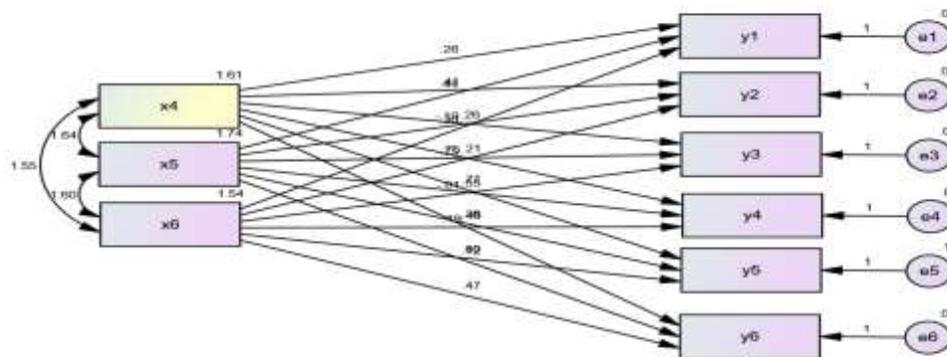


Figure 4. Structural Equation Model (SEM) for Business Incubator Dimensions (Community Impact and Incubator Services and Provision of Appropriate Financial Resources) in SME Entrepreneurship Dimensions

Table 7. Conformity Quality Indicators

Comparison	Indicator value	Indicator
Bigger than 5	23.14	X ² /df
Less than 0.90	0.681	GFI
Less than 0.90	.0.060	AGFI
Bigger than 0.08	0.365	RMSEA
Bigger than 0.90	0.931	CFI
Bigger than 0.90	0.934	NFI

After reviewing the indicators of the model, it was found that the value of the error index was not acceptable as (RMSEA) was greater than the allowed limit. It is clear that the model is unacceptable because it did not achieve the structural validity of the scale (conformity quality conditions). Accordingly, the required modifications should be made to the model according to the recommendations of the Modification indices indicators, which include either deleting or modifying paragraphs of high common contrast within the model,

after modification, the final model shall be in accordance with this procedure as shown in figure (5) and table (8).

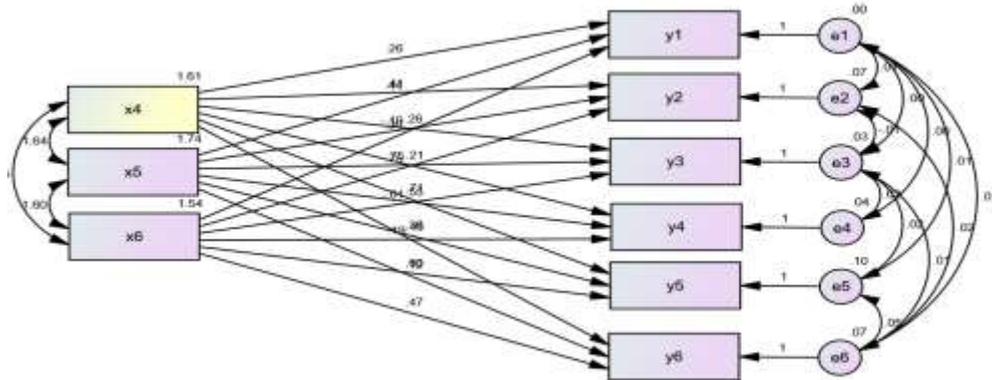


Figure 5. Modified Model Structural Equation (SEM) for Business Incubator Dimensions (Societal Impact, Provision of Appropriate Financial Resources and Incubator Services) in SME Entrepreneurship Dimensions

Table 8. Conformity Quality Indicators after Adjustment

Comparison	Indicator value	Indicator
Less than 5	2.61	X ² /df
Bigger than 0.90	0.986	GFI
Bigger than 0.90	0.901	AGFI
Less than 0.08	0.074	RMSEA
Bigger than 0.90	0.999	CFI
bigger than 0.90	0.998	NFI

According to the conformity quality indicators shown in figure (5), it is clear that the model has obtained good values for the conformity quality indicators and fulfilled the acceptance conditions.

Table (9) shows an effect between the dimensions of the first variable (adoption of new projects, incubator growth and sustainability and the techniques used) and the dimensions of the second variable where the results as follows:

- Positive significance effect after the adoption of new projects and after creativity by the value of the impact factor (.422) at a critical rate (23.173).
- Positive significance effect between the adoption of the new projects and after the independence by the value of the impact factor (.205) at a critical rate (3.059).
- Positive significance effect between the adoption of new projects and the proactive value of the impact factor (.705) at a critical rate (15.920).
- Positive significance effect between the adoption of new projects and the adoption of risk by the value of the impact factor (.533) at a critical rate (10.897).



- Positive significance effect between the adoption of new projects and after the offensive competition with a value of the influence factor (.567) at a critical percentage (7.763).
- Positive significance effect between the adoption of new projects and after the financial measurement by the value of the impact factor (.301) at a critical rate (5.046).
- Positive significance effect between the incubators growth and sustainability and after the creativity by the effect coefficient value (266) at a critical rate (8.382).
- Positive significance effect between incubator growth, sustainability and independence with effect factor value (.452) and critical ratio (3.873).
- Positive significance effect between incubator growth, sustainability and proactive value of the influence coefficient (.290) at a critical rate (3.754).
- Positive significance effect between the growth and sustainability and after the adoption of the risk by the value of influence factor (.255) at a critical rate (2.996).
- Positive significance effect between the incubators growth and sustainability and the offensive competition with the effect factor value (.803) at a critical rate (6.311).
- Positive significance effect between incubator growth and sustainability and financial measurement with effect factor value (.571) at a critical ratio (5.498).

The following table shows that the dimension (x3) has no effect on the dimensions of the second variables.

This shows that the organization innovates in embracing new projects and working on their sustainability and has independence and is proactive of these projects. They are also seeking to adopt the risk and offensive competition of new small and medium projects as well as financial measurement of these projects and avoid losses and gains profits through the development of profitable small and medium projects.

These findings support the first main hypothesis by the second hypothesis.

It is noticed from table (9) that there is a significant effect between the dimensions of the first variable (societal impact, incubator services, provision of appropriate financial resources) and the dimensions of the second variable where the results were extracted from testing this hypothesis as follows:

- Positive significance effect between the dimension of societal influence and creativity by the influence coefficient (.257) at a critical rate (10.655).
- Positive significance effect between the societal dimension and the independence of the influence factor (.408) with a critical ratio (4.125).
- Positive significance effect between the societal dimension and the pro-active dimension with the effect coefficient value (.257) at a critical rate (4.024).
- Positive significance effect between the societal impact dimension and risk with the value of the influence factor (.206) at a critical rate (2.733).
- Positive significance effect between the societal influence dimension and the offensive competition with the effect factor value (.712) at a critical rate (5.981).
- Positive significance effect between the societal dimension and the financial measurement with the value of the influence factor (.456) at a critical rate (4.601).
- Positive significance effect between incubator services and creativity after the value of the influence factor (.438) at a critical rate (21.541).
- Positive significance effect between incubator services dimension and after independence with effect coefficient value (.189) at a critical rate (2.267).



- Positive significance effect between the incubator and proactive services after the influence factor (.750) at a critical rate (13.958).
- Positive significance effect between the incubator services after the adoption of the risk and the value of the influence factor (.548) at a critical rate (8.650).
- Positive significance effect between the incubator services and after the offensive competition with the effect factor value (.358) at a critical rate (3.573).
- Positive significance effect between the incubator services dimension and after the financial measurement with the effect factor value (.116) at a critical rate (1.395).
- Positive significance effect between the provisional of appropriate financial resources and innovation after the value of the impact factor (.279) at a critical rate (12.825).
- Positive significance effect between the provision of appropriate financial resources and the independence of the value of the impact factor (.745) at a critical rate (7.843).
- Positive significance effect between the provision of appropriate financial resources and the proactive value of the impact factor (.009) at a critical rate (.146).
- Positive significance effect between the provision of the appropriate financial resources and risk adoption by the value of the impact factor (.187) at a critical rate (2.594).
- Positive significance effect between the provision of appropriate financial resources and after the offensive competition with the value of the influence factor (.003) at a critical rate (.025).
- Positive significance effect between the provision of the appropriate financial resources and the financial measurement with the value of the impact factor (.472) at a critical rate (4.963).

We conclude from the above that the organization provides business incubator services and community impact for small and medium projects with the provision of financial resources that promote creativity, independence and proactive for those projects.

These findings support the second main hypothesis from the second sub-hypothesis.

Table (9) direct effect of dimensions of the first variable in the dimensions of the second variable

Tracks			Non-standard estimates	Standard estimates	S.E. standard error	C.R. critical ratio	P probability
y1	<---	x1	.422	.449	.018	23.173	***
y2	<---	x1	.205	.226	.067	3.059	.002
y3	<---	x1	.705	.725	.044	15.920	***
y4	<---	x1	.533	.585	.049	10.897	***
y5	<---	x1	.567	.545	.073	7.763	***
y1	<---	x2	.266	.265	.032	8.382	***
y2	<---	x2	.452	.466	.117	3.873	***
y3	<---	x2	.290	.278	.077	3.754	***
y4	<---	x2	.255	.262	.085	2.996	.003
y5	<---	x2	.803	.722	.127	6.311	***
y6	<---	x2	.571	.539	.104	5.498	***
y1	<---	x6	.298	.293	.031	9.516	***
y2	<---	x6	.722	.733	.115	6.264	***
y3	<---	x6	.007	.006	.076	.088	.930
y4	<---	x6	.146	.148	.084	1.733	.083



Tracks			Non-standard estimates	Standard estimates	S.E. standard error	C.R. critical ratio	P probability
y5	<---	x6	.319	.283	.126	2.541	.011
y6	<---	x6	.159	.148	.103	1.552	.121
y6	<---	x1	.301	.304	.060	5.046	***
y1	<---	x4	.257	.2580	.024	10.655	***
y2	<---	x4	.408	.4240	.099	4.125	***
y3	<---	x4	.257	.2490	.064	4.024	***
y4	<---	x4	.206	.2130	.075	2.733	.006
y5	<---	x4	.712	.6450	.119	5.981	***
y1	<---	x5	.438	.4560	.020	21.541	***
y2	<---	x5	.189	.2040	.083	2.267	.023
y3	<---	x5	.750	.7550	.054	13.958	***
y4	<---	x5	.548	.5900	.063	8.650	***
y5	<---	x5	.358	.3370	.100	3.573	***
y6	<---	x5	.116	.1150	.083	1.395	.163
y1	<---	x6	.297	.2920	.023	12.825	***
y2	<---	x6	.745	.7570	.095	7.843	***
y3	<---	x6	.009	.0090	.061	.146	.884
y4	<---	x6	.187	.1900	.072	2.594	.009
y5	<---	x6	.003	.0030	.114	.025	.980
y6	<---	x6	.472	.4390	.095	4.963	***
y6	<---	x4	.456	.4330	.099	4.601	***

Section four / Conclusions and recommendations

Conclusions

- 1- The small and medium projects owners seek to share with others in providing distinctive experiences in the management of these projects to help them turn their innovations and inventions into reality and develop their staff. This will increase performance in accordance with the objectives set by projects owners that contribute in improving the economic development level represented by creating new projects and supporting it also taking care of their quality and development as well.
- 2- The main problem facing these projects is the individuality and the lack of institutional interdependence as the owners face many obstacles that make these projects unsuccessful, and work to achieve independence and self-realization. One of the most likely factors facing the owners of these projects is to achieve their goals and to employ its practicality.
- 3- The strength of the selected variables appeared in the research, which means that they can be relied upon in the measurement and deduction based on the significance of the dimensions correlation of the variables. This indicates that business incubators have a role in the leadership of small and medium projects in the researched Ministry.
- 4- The current trends in granting loans is the extent of success and nature of embracing that project, because it has a big role in identifying the size of competitors and the possibility of keeping up in the market.
- 5- The standards on which Tourism Companies depends on what transpires in the case of providing loans to the owners of projects and work to embrace those projects, in order to serve all sectors, especially the service sector in terms of suitability to the conditions it work in.



Recommendations

- 1- The research recommends creating a specialized body preparing business incubator plans in the Ministry and to provide integrated technical support in the field of marketing strategies, accounting, legal problems and project management within the framework of sustainable development pushing towards the promotion and development of small and medium projects.
- 2- Qualifying employees through training courses in business administration and project creation fields also ensures the owners have the leadership spirit and work for plans and programs for their small and medium projects. This needs the full commitment of all to implement the procedures and processes necessary for the strategies involved in projects.
- 3- Understanding and appreciating the information technology and management systems roles to give the opportunity to discuss topics related to solving problems of small and medium projects. They should also be providing all means to ensure the continuity and success of these projects which has become a vital and essential factor, serves the beneficiaries, product development and achieves cost savings.
- 4- Providing a legal and regulatory cover for these projects, which plays a distinct role in the stage of establishment, renewal and creativity and processing quickly all the financial problems they face. They also need to solve them in different stages and achieve competitive advantage to ensure their survival.
- 5- Providing the necessary commercial, marketing and technical information to entrepreneurs through institutional mechanisms to help in providing data on marketing services for small and medium project products locally and abroad. Creating an information network for suppliers and exporters on machinery, raw materials, preparing market surveys, challenges and opportunities that help in creating appropriate business incubators.

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