



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact factor: 4.295

(Volume 4, Issue 6)

Available online at: www.ijariit.com

Effect of scenario planning on strategic entrepreneurship in Iraqi higher education

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ABSTRACT

For many organizations and institutions, the challenge of knowing how to face competition derived from the globalization of the economy is presented. A fundamental technique to successfully answer that question is scenario planning. Which has become the basis for the success of various businesses? Accordingly, the objective of this study is to analyze the effect of scenario planning on strategic entrepreneurship. Considering the impact which may have the dimensions of scenario planning and strategic entrepreneurship. For this, a theoretical model was designed depending on the literature, the Questionnaire was the main tool for this study. Statistical analysis, based on direct correlation and effects tests (using SPSS and Amos software), allows proving there are positive effects on strategic entrepreneurship by scenario planning and its dimensions as revealed by the findings.

Keywords— Scenario planning, System thinking, Future open thinking, Strategic thinking, Strategic entrepreneurship

1. INTRODUCTION

In light of global progress, the organizations, in different fields, strive to achieve competitive success and entrepreneurship strategically (Knight, 2001), and this requires universities to play an important role in achieving its academic goals and to take care of academic classification and ranking among the universities of the world and achieve strategic entrepreneurship. (Patzelt and Shepherd, 2009). Entrepreneurship has become one of the most important issues of wide international interest due to the role it plays in economic and social development, in addition to its role in involving many social groups in economic activity (Kraakman and Hansmann, 2017). And basically represents an important corner of social culture through the preservation of the characteristics and traditions of society, for its contribution to the basic form in the continuous improvement of scientific progress and civilization through the development of moral leaders able to guide the community to address the crises that may face (Tilly, 2017). Therefore, leadership is now one of the most important forces that organizations have in order to control workers (Johnston and Marshall, 2013). The organization may have financial and technological resources, but it cannot reach its goals unless there is ethical leadership with high potential. The function of ethical leadership is, therefore, an important function in creating and maintaining value in today's organizations. Leadership cannot work properly without a clear strategic plan (Carragher, 2015). There is a need to take care of tools that can contribute to building a successful strategy.

Hence, many organizations, including universities, in particular, have been interested in studying and analyzing the external environment and the economic and political changes that directly or indirectly affect the strategic plans of the organizations. This led many of these organizations to develop alternative strategic plans to address these variables and develop a number of possible scenarios (Grant, 2016). They can be more flexible to cope with non-natural obstacles and conditions, and many strategic planners have resorted to modern techniques for future planning and long-term planning.

The scenario has become an important and vital role in the success or failure of strategic plans due to its reliance on the accuracy of environmental analysis (Bryson, 2018). Scenarios allow managers to describe a possible future as specific data are available and allow rational assumptions of potential situations under a core data set (Young and Muller, 2015). Accordingly, this study aims to identify the role of scenario planning in achieving strategic entrepreneurship.

2. LITERATURE REVIEW

2.1. Scenario planning

One of the tools today used by both executives and strategists to identify themselves is scenario planning. One of the core values of the scenario is its ability to avoid the traditional entrances that competitors can embrace but instead, create new business ideas. One

important factor is response time and the need to reach the desired location before others (Sadatsafavi and Kim, 2015). Future scenario planning explores not only the availability of possible and coherent alternatives but also the availability of different future perspectives (Serrao and Choy, 2018). This is why the essence of scenario planning is imaginative, mental, and cognitive abilities in more than one reality (Ohme and Zacher, 2015). Cognitive scientists point to the importance of future memory in portraying some possible future situations that do not yet exist. With this intellectual status, we can look at things that are easy to learn about the possibilities for the purposes and plans being carried out. It is, therefore, a process of simulation and training of the mind (Brentani, 1995). Which clearly shows through the thinking of the scenario important operational functions that correspond to the mental models in enabling the organization to actually act on the understanding and reduce the failure that emerges with mental models due to poor coherence (Mingers and White, 2010).as well as the use of quantitative methods in data analysis and relationships between scenario planning and surrounding phenomena. And scenario planning refers to mental and practical training for the purpose of increasing the expertise of the organization's leaders and providing them with high skills in building future scenarios and taking appropriate decisions (Bryson,2018). On this basis, scenario planning reflects organizational learning practices in the future performance of the organization. Therefore, organizations that rely on scenario planning their performance will be better than those not applied to scenario planning (Othman, 2008). Scenario planning concerns future uncertainties, Professional literature presented many basic concepts of scenario planning. Porter (1998) referred to it as an organized tool for imagining the future in which structured decisions are taken.

2.2. Scenario planning dimensions

A number of studies indicate that scenario planning consists of multiple dimensions. As part of the historical survey conducted by the researcher, it is clear that the best dimensions can be consistent with the studied sample (Enezi and Adnan, 2014; Fink et al., 2005). Systematic (organizational) thinking, strategic thinking, future open thinking).

The figure 1 shows some traditional approaches, dynamic systems, are systems compatibility and strategic thinking. But without multiple perspectives. On the other hand, most of the entrances to scenario planning are based on open-minded thinking and strategic thinking. But they ignore the complexity of the market environment, and the scenarios quickly become obsolete. Most of the approaches to scenario technologies from European countries are very complex but often fail to integrate with strategic management. The unique future of scenario management is to create a combination of these methods of system (organizational) thinking, future open thinking, and strategic thinking. (Fink et al., 2005).

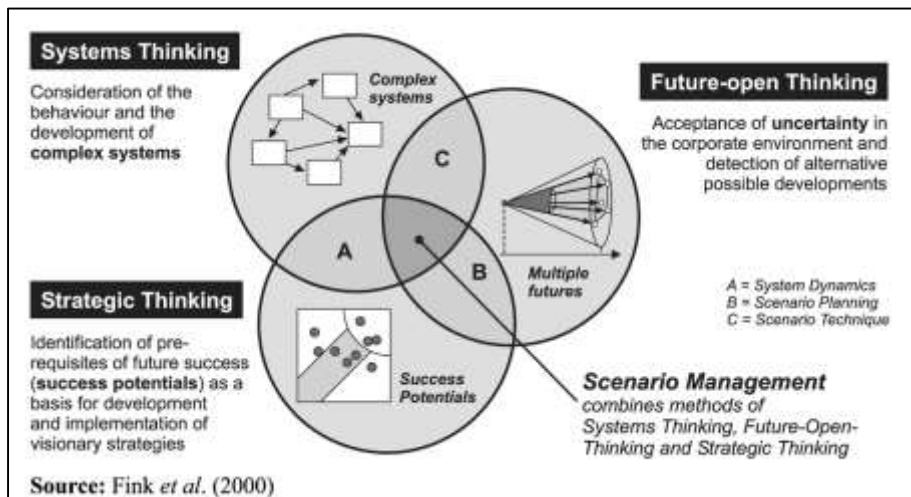


Fig. 1: Scenario planning dimensions

All of these dimensions belong to four main steps of scenario development and improvement as it shown in figure 2.

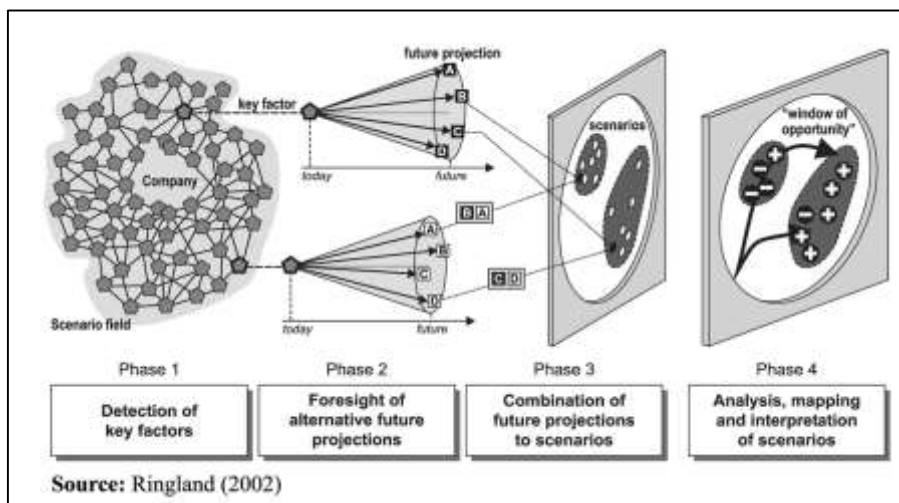


Fig. 2: Steps of scenario development

2.2.1. Systems thinking: Diversification and dynamism are increasing in entrepreneurial activities. At the same time, most administrative approaches are still based on the traditional thinking of cause and effect in distinguishing subsystems. This usually leads to structural problems (Haines, 2016). In the planning series, the organization needs to take into account the complex systems developments and behavior by addressing the interlinkages between the most important elements of the larger environment.

The way in which each predefined element is determined in the future is understood through systems thinking (Leischow et al., 2008). The pre-defined elements of clarity are important to the realization and development of the management consensus. However, the predefined elements of the system are more important and do not become directly apparent, but they are demonstrated by the good interrelationships of the exploratory scenarios. Only through deep reflection and studying the potential actions of each key factor can some predefined elements appear. The slow change in pre-selection does not register as it slowly occurs, and therefore requires a reassessment. The impossible predetermination is a critical limitation because it can appear from the first glance as possible and reliable but by doing a larger scan cannot be proven (Sharp and Heijden, 2008).

2.2.2. Strategic thinking: Strategic thinking makes sense about uncertainty (Fink et al., 2005). If the future is uncertain (100%), the planning process is a waste of time. The main task is to separate predictable things from basic uncertainty, and predictable elements become known as predefined elements (Sharp and Heijden, 2008). The difference between wealth winners and those who make it difficult is simply that wealth winners move forward despite their fears, and uncertainty is not allowed. To stop them.

2.2.3. Future open thinking: There are increasing difficulties in making accurate forecasts of future developments and trends. Organizations should, therefore, forget the idea of one-way future forecasting. Instead, future options should be included in their calculations on how elements of influence evolve (Fink et al, 2005). Over the last 10 or 20 years, business has accepted the need to function systematically in the future industry. But long-term planning has not - and cannot - do so in order to remove the danger and make sure. And working on the future industry is not in order to determine the work we should do tomorrow, but what should be done today to own tomorrow (Drucker, 2000).

2.3. Strategic entrepreneurship

The concept of entrepreneurship is always linked to new ideas that provide new services and products, or a new, more efficient production method, which is based on the element of risk through the development of an old product or the introduction of a new product and service. The risk includes the possibility of the consumer not accepting the products or services in a good way or not (Randerson et al., 2016). To move towards this new product or service, which makes the concept of entrepreneurship multiple and includes owners, entrepreneurs, successful entrepreneurs and the owner of the risk.

The word entrepreneurship refers to the French word (*entreprendre*), which means the person who initiates a business according to innovative creative ideas and innovative ways based on risk and adventure (Rhoades and Smart, 2018). The entrepreneur is the person who has the will and ability to transform new ideas into successful innovation based on the leading forces in the market and the various industries to obtain new products and business models that contribute to industrial development and economic growth in the long term (Hitt et al., 2001). Entrepreneurship is based on the entrepreneurial activities and expertise and ability to direct others to activate and inspire them so that they can know how to achieve their hopes and objectives through creative ideas that contribute to improving the working methods in both products and services and enhancing their competitiveness (Goldstein and Silberstang, 2009).

The strategic leader is the integration of the entrepreneurial perspective (the search for opportunity) and the strategic perspective (the search for the advantage), to design and implement the entrepreneurial strategies that create well-being, and that integration is necessary for the organizations (Kyrgidou and Hughes, 2010) (Kraus et al., 2011) refers to new dimensions as well as the previous dimensions (resources, capacities, strategy, entrepreneurship, environment, as well as organizational structure) that contribute to Create value by combining leading elements the strategy is managed through resource management and dynamic capabilities. We conclude from this that the resource-based approach to resources has a role to play in shaping strategic leadership to maximize well-being. The integration of entrepreneurial theory, strategic management, and strategic leadership helps organizations and entrepreneurs develop without competition because they will create unique resources of creative value to society.

(Bhardwaj et al., 2011) believes that the entrepreneurial vision creates the new adventure through which the gains of the entrepreneurial team and the organization can be reaped: new adventures, new business, product and service innovation, process innovation, self-renewal, risk-taking, proactive, competitive and capital social responsibility, which plays an important role in the emergence of internal leadership. The responsibility of formulating the vision of leadership lies in the top level executives and the vision of effective leadership allows affected parties to focus on critical tasks as they seek organizational and personal goals, The vision must be understandable and easy, and it suggests that individuals are motivated by the performance of work and the creation of cultural cohesion as they contribute to knowledge sharing in logical competitive ways

3. MATERIAL AND METHODS

3.1. Instrument

Depending on the discussion for previous studies and literature, a theoretical model was proposed to explain the scenario planning on the basis of its dimensions organizational thinking, strategic thinking, and future thinking that affect the process of strategic entrepreneurship.

The tools used to collect the data were the questionnaire. The questionnaire consists of three parts. The first one belongs to respondents characteristics and the second part included the independent variable scenario planning (SP), which consists of three basic dimensions (organizational thinking (OT), strategic thinking (ST) and future thinking (FT)) , And the third part included the

dependent variable strategic entrepreneurship (SE) with six dimensions innovation (I), opportunities (O), risk-taking (R), growth (G), vision (V), flexibility (F), in order to test the reliability Cronbach alpha coefficient were calculated, the values were shown in table 1, that proved acceptable value of reliability.

Table 1: Reliability statistics

Item	Cronbach's Alpha	Item	Cronbach's Alpha
OT	0.745	I	0.781
ST	0.714	C	0.778
FT	0.775	R	0.801
SP	0.812	G	0.709
		V	0.803
		F	0.807

3.2. Sample

The study was carried out in the higher education institution in Iraq. A random sample of 90 was selected. However, 85 were retrieved, four were rejected to participate and complete the questionnaire. The number of completed questionnaires returned were 81, five were invalid and excluded, thus the final number of 76 questionnaires were used for analysis. Accordingly, the response rate was 84.4%. Therefore, the sample size is sufficient to achieve the minimum required for data analysis. We finally obtained a total of 76 valid responses. This represents a sampling error of 3.6%. The present study is the first in this area to analyze all the scientific fields, institutions, and professional categories within a given country and given variables.

As antecedents of SP construct as an independent variable, we consider three of the sub-variables (OT,ST, and FT). These three variables affect the dependent variable SE which measured by five dimensions (I,C,R,G,V,F).

3.3. Demographic profile

Comparison of our sample with the official statistics showed it to be representative in terms of specialty, demographics. In particular, 76.32% of the respondents were men and (23.68%) were women, the majority were (40-49) ages with (42.11%) with (22.37%) for (30-39) ages that's been the majority were between (30-49) ages with a total percentage (64.48%), and the rest were (19.74%) for (50-above) and (15.79%) for (less than 30). with regard to years of experience, 67.11% had been working between 10 and 19 years in the institution, 18.42% with less than 10 years of working experience, and another 14.47% with 20 years and above. Table 2 describes the demographic profile of respondents.

Table: 2 Demographic profile

Characteristics	Frequency (N=76)	Percentage (%)
Gender		
Male	58	76.32 %
Female	18	23.68 %
Age		
Less than 30	12	15.79 %
30-39	17	22.37 %
40-49	32	42.11 %
50- above	15	19.74 %
Years of Experience		
Less than 10	14	18.42 %
10-19	51	67.11 %
20- above	11	14.47 %

3.4. Theoretical Framework

In order to achieve the objectives of the study and the analysis of the collected data, many statistical methods were used to adopt the statistical programs. And it to test the conceptual framework in figure 3, which includes two kind of variables, the first is independent variable scenario planning (SP) with three sub dimensions organizational thinking (OT), strategic thinking (ST) and future thinking (FT), and the second is dependent variable strategic entrepreneurship (SE) with six sub dimensions which considered as latent variable.

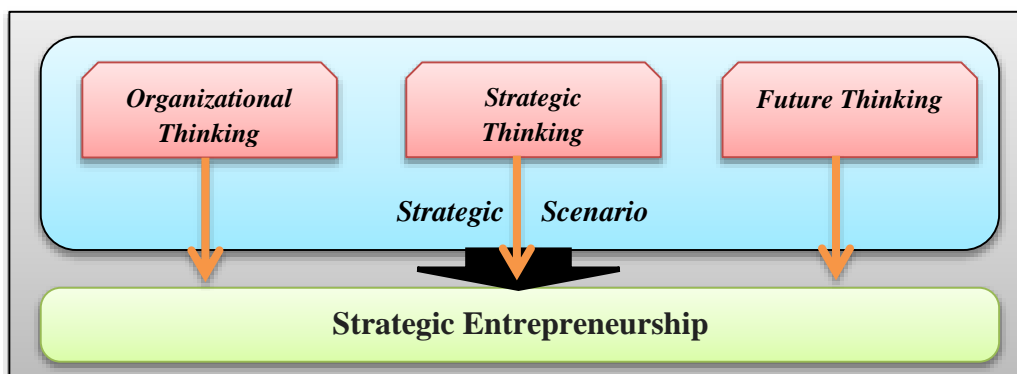


Fig. 3: Conceptual Framework

3.5. Normality test

In order to test the normality of the data that been collected, the study uses the normality test using (Amos v.18), the tables 3, 4 shows the result of the normality test all values are between (-1.96, +1.96) ,so it refers to the following statistical decision: all the data of both variables (SP, SE) follow the normal distribution as it showed in figure 4.

Table 3: Normality Test for SP data

Variable	min	max	skew	c.r.	kurtosis	c.r.
Vx18	2.000	5.000	-1.201	-4.276	1.092	1.943
Vx17	2.000	5.000	-1.478	-5.259	1.554	2.765
Vx16	3.000	5.000	-1.429	-5.086	1.084	1.929
Vx15	2.000	5.000	-1.149	-4.090	.648	1.153
Vx14	3.000	5.000	-.959	-3.413	-.173	-.308
Vx13	3.000	5.000	-1.047	-3.727	.042	.075
Vx12	2.000	5.000	-1.425	-5.073	1.424	2.535
Vx11	3.000	5.000	-1.124	-4.002	.221	.393
Vx10	3.000	5.000	-1.108	-3.944	-.052	-.093
Vx9	3.000	5.000	-1.327	-4.722	.743	1.322
Vx8	3.000	5.000	-1.377	-4.900	.523	.931
Vx7	2.000	5.000	-1.297	-4.614	1.182	2.103
Vx6	2.000	5.000	-.929	-3.307	-.032	-.057
Vx5	2.000	5.000	-1.212	-4.314	1.646	2.929
Vx4	2.000	5.000	-1.278	-4.549	1.094	1.947
Vx3	2.000	5.000	-1.263	-4.495	1.265	2.252
Vx2	2.000	5.000	-1.187	-4.225	.918	1.634
Vx1	3.000	5.000	-1.116	-3.972	.114	.203
Multivariate					36.489	5.928

Table 4: Normality test for SE data

Variable	min	max	skew	c.r.	kurtosis	c.r.
Vy30	2.000	5.000	-.547	-1.948	-.773	-1.376
Vy29	1.000	5.000	-.922	-3.283	.140	.249
Vy28	2.000	5.000	-1.315	-4.681	1.282	2.280
Vy27	1.000	5.000	-1.095	-3.896	.841	1.496
Vy26	1.000	5.000	-.558	-1.985	-.072	-.128
Vy25	1.000	5.000	-.592	-2.108	-.687	-1.223
Vy24	2.000	5.000	-.607	-2.162	-.513	-.913
Vy23	3.000	5.000	-.852	-3.032	.841	1.497
Vy22	1.000	5.000	-.668	-2.379	-.071	-.127
Vy21	2.000	5.000	-1.440	-5.124	1.441	2.564
Vy20	1.000	5.000	-.389	-1.384	-.591	-1.053
Vy19	1.000	5.000	-1.246	-4.433	1.577	2.806
Vy18	1.000	5.000	-1.002	-3.565	-.137	-.244
Vy17	2.000	5.000	-1.364	-4.855	1.589	2.827
Vy16	1.000	5.000	-1.222	-4.348	1.170	2.082
Vy15	1.000	5.000	-.272	-.968	-.651	-1.159
Vy14	2.000	5.000	-1.425	-5.073	1.424	2.535
Vy13	1.000	5.000	-.930	-3.309	.888	1.581
Vy12	1.000	5.000	-.409	-1.456	-.803	-1.429
Vy11	2.000	5.000	-1.461	-5.200	1.223	2.177
Vy10	3.000	5.000	-1.124	-4.002	.221	.393
Vy9	3.000	5.000	-1.108	-3.944	-.052	-.093
Vy8	3.000	5.000	-1.327	-4.722	.743	1.322
Vy7	3.000	5.000	-1.377	-4.900	.523	.931
Vy6	2.000	5.000	-1.201	-4.276	1.092	1.943
Vy5	2.000	5.000	-.501	-1.785	-.892	-1.588
Vy4	2.000	5.000	.071	.252	-.845	-1.503
Vy3	2.000	5.000	-.563	-2.003	-.829	-1.476
Vy2	2.000	5.000	-1.187	-4.225	.918	1.634
Vy1	3.000	5.000	-1.116	-3.972	.114	.203
Multivariate					88.651	8.819

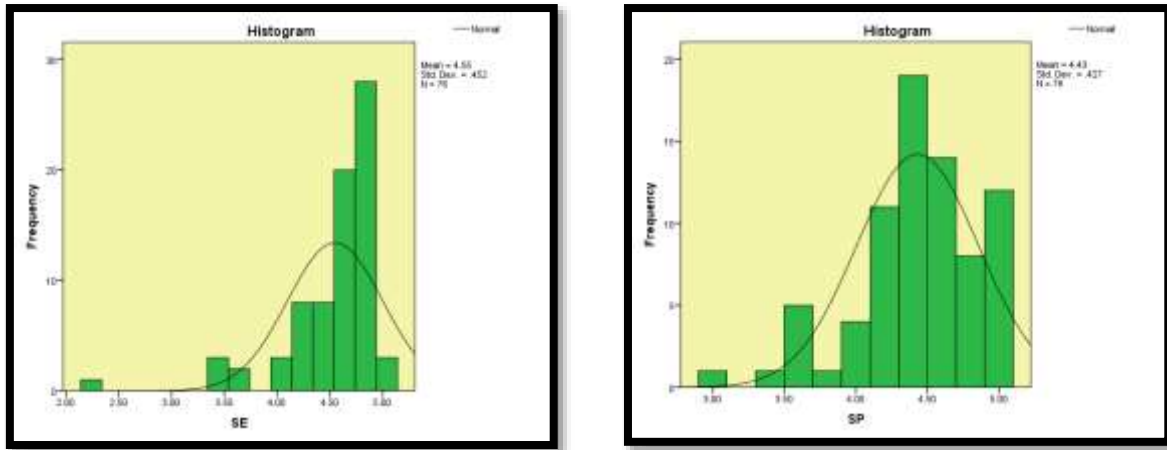


Fig. 4: Normality histogram for data

4. RESULTS

4.1. Confirmatory Factor Analysis CFA

Structural equation modeling (SEM) is an appropriate technique for verifying the construction of a high latent construct factor (Pollen, 1989) in order to test the model construction Amos software were used. And using confirmatory factor analysis (CFA) with (SEM) modeling of structural equations are statistical techniques can be used to reduce the number of observed variables of latent variables by examining the variance between them (James et al., 2006).

The adequacy of this tools is most appropriately applied to measures the relationship that validity given the sample data (Berne, 2012) all based on appropriate indicators as in table 5.

Table 5: Fit Indices for modeling

Fit Index	Acceptable Threshold Levels	Description
Absolute Fit Indices Chi-Square X2	Low χ^2 relative to degrees of freedom with an insignificant p value ($p > 0.05$)	
Relative χ^2 (χ^2/df)	2:1 (Tabachnik & Fidell, 2007) 3:1 (Kline, 2005)	Adjusts for sample size.
(RMSEA)	Values less than 0.07 (Steiger, 2007)	Has a known distribution. Favours parsimony. Values less than 0.03 represent excellent fit.
GFI	Values greater than 0.95	Scaled between 0 and 1, with higher values indicating better model fit. This statistic should be used with caution.
AGFI	Values greater than 0.95	Adjusts the GFI based on the number of parameters in the model. Values can fall outside the 0-1.0 range.
RMR	Good models have small RMR (Tabachnik and Fidell, 2007)	Residual based. The average squared differences between the residuals of the sample covariance and the residuals of the estimated covariance.
SRMR	SRMR less 0.08 (Hu & Bentler, 1999)	Standardized version of the RMR. Easier to interpret due to its Standardized nature.
<i>Incremental Fit Indices</i>		
NFI	Values greater than 0.95	Assesses fit relative to a baseline model which assumes no covariance between the observed variables. Has a tendency to fit in small samples.
NNFI (TLI)	Values greater than 0.95	Non-normed, values can fall outside the 0-1 range. Favours parsimony. Performs well in simulation studies (Sharma et al, 2005, McDonald and Marsh, 1990)
CFI	Values greater 0.95	Normed, 0-1 range.

Source: Daire H., Joseph C., Michael R. Mullen, Structural Equation Modeling: Guidelines for Determining Model Fit, Journal of Business Research Methods Volume 6 Issue 1 2008.

4.1.1. Scenario Planning CFA: This variable consists of three main dimensions, according to the values of the indicators shown in figure 5, it appears that the model was not valid and not good to measure this variable, so it needs to modify the model by using (modification indices) .as it showed in table 6 and figure 6.

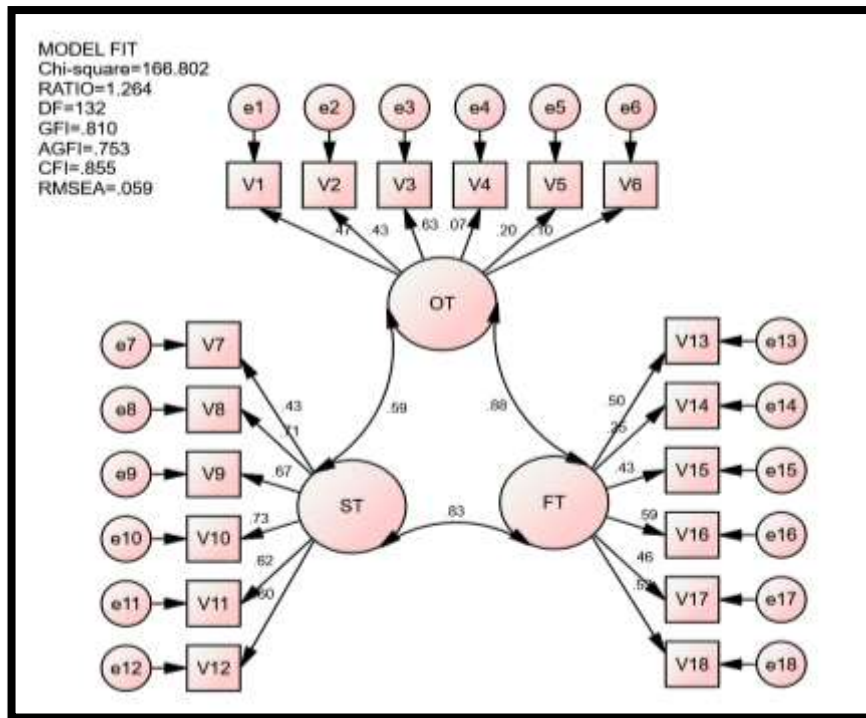


Fig. 5: Proposed model of (SP) according to (SEM)

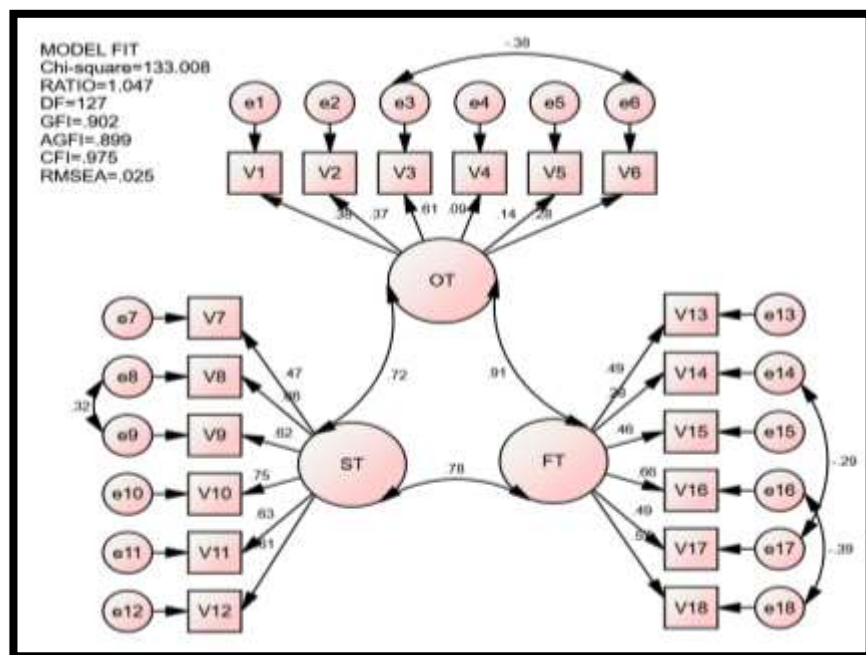


Fig. 6: Modified model of (SP) according to (SEM)

Table: 6 Indicators for Modified Model for SP

Indicator	Value	Condition
Chi/DF	1.047	Support
GFI	0.902	Support
AGFI	0.899	Approximately Support
RMSEA	0.025	Support
CFI	0.975	Support

4.1.2. Strategic Entrepreneurship CFA: This variable consists of six dimensions, according to the values of the indicators shown in figure 7, it appears that the model was not valid and not good to measure this variable, so it needs to modify the model by using (modification indices). As it shown in table 7 and figure 8.

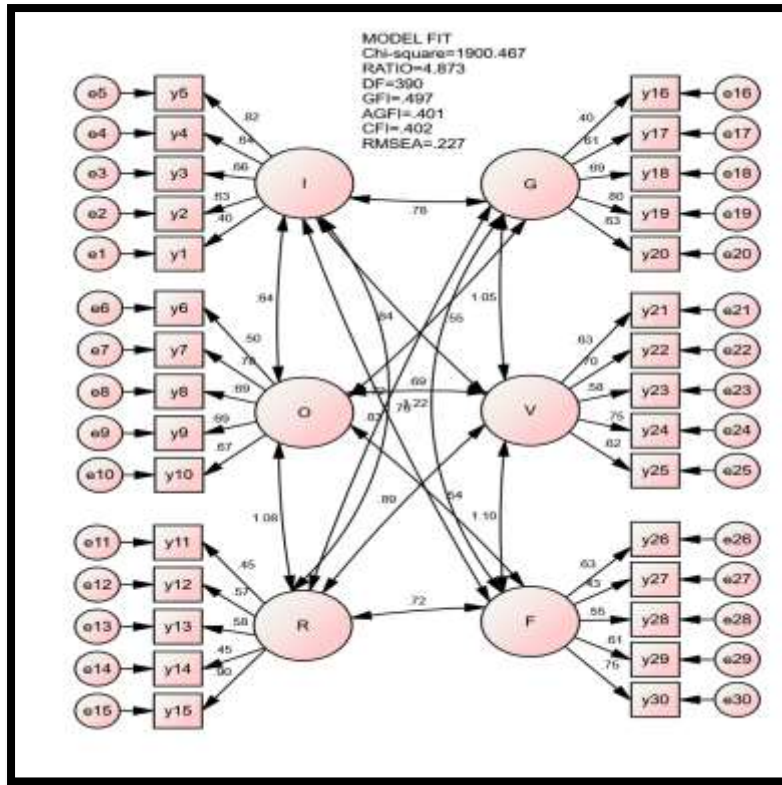


Fig. 7: Proposed model of (SE) according to (SEM)

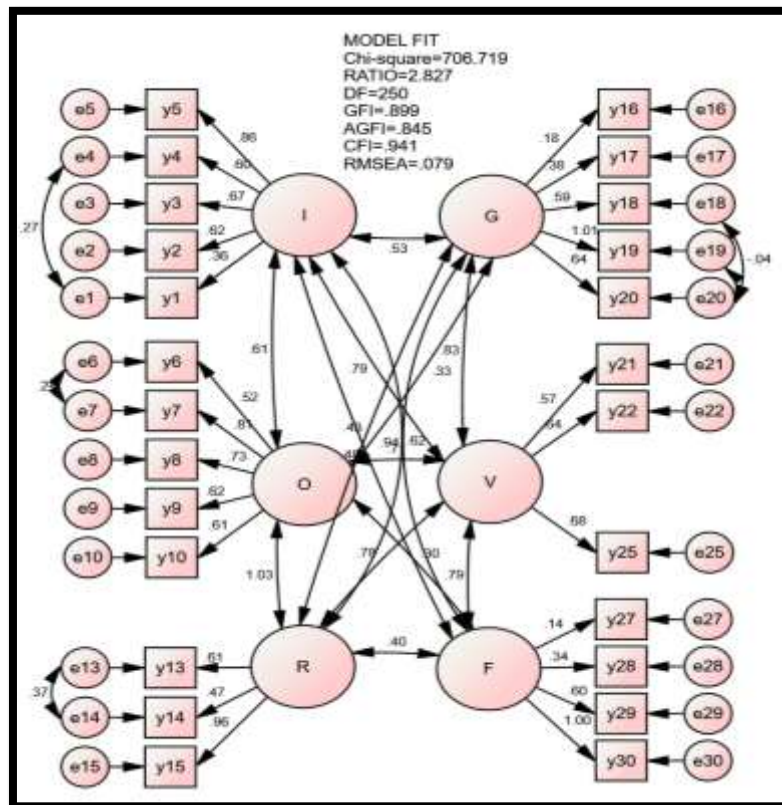


Fig. 8: Modified model of (SE) according to (SEM)

Table 7: Indicators for a modified model for SE

Indicator	Value	Condition
Chi/DF	2.827	Support
GFI	0.899	Approximately Support
AGFI	0.845	Approximately Support
RMSEA	0.079	Support
CFI	0.941	Support

4.2. Hypothesis Testing

In order to calculate the relationship between the variables, Pearson correlation coefficient and simple and multiple regression analysis were adopted in order to analyze the data, in addition to the adoption of the program (SPSS v.24) and (Amos v.18).

4.2.1. Hypothesis H1: The results of table 8 indicate that the correlation coefficient between the SP and SE is (0.718), indicating a positive relationship between the two variables with significant correlation according to the value of T test which recorded value with (8.885) which was greater than tabled value, with significance less than (0.05) . This means that the use of the SP increases the SE, this result supported H1. The correlation between OT and SE is (0.663) indicates the adoption of OT increases the chances of SE with significant correlation according to the value of T test which recorded value with (7.027) which was greater than tabled value, with significance less than (0.05) , this result supported H11, while the correlation coefficient between the ST and the SE is (0.613). This indicates that the high ST contributes to the positive requirements of the SE , with significant correlation according to the value of T test which recorded value with (6.675) which was greater than tabled value, with significance less than (0.05), this result supported H12. In terms of FT, the coefficient of correlation is (0.672), which indicates that interest in FT leads to SE, with significant correlation according to the value of T test which recorded value with (7.800) which was greater than tabled value, with significance less than (0.05), this result supported H13.

Table 8: Correlation coefficient results

Var.	r	T	Sig	Hypothesis
OT	0.663	7.027	0.000	Supported
ST	0.613	6.675	0.000	Supported
FT	0.672	7.800	0.000	Supported
SP	0.718	8.885	0.000	Supported
		T 0.01 = 2.37	T 0.05 = 1.66	

4.2.2. Hypothesis H2: The results of the analysis in table 9 show that there is a significant positive effect of the independent variable SP on the dependent variable SE. The value of the constant coefficient (1.469) and beta (0.667). This result refers to the changes in the independent variable SP with one time lead to (0.667) change in the dependent variable, and there is an explanation of the value of (51.6%) for any change in the dependent variable, because the value of the interpretation coefficient recorded a value of (0.516), which is high, this model is significant due to the value of estimated F which recorded more than tabled F in the level of significance of 0.05, this result support hypothesis H2,

Regarding sub hypotheses table 9 shows there is a significant effect of the independent variable OT on the dependent variable SE. The value of constant coefficient recorded (1.999) and beta (0.551). This result refers to the changes in the independent variable OT with one time lead to (0.551) change in the dependent variable, and there is an explanation of the value of (40%) for any change in the dependent variable, because the value of the interpretation coefficient recorded a value of (0.400), which is high, this model is significant due to the value of estimated F which recorded more than tabled F in the level of significance of 0.05, this result support hypothesis H21,

As for the second sub hypothesis, H22 is also supported, table 9 shows that there is a significant effect of the independent variable ST on the dependent variable SE. The value of constant coefficient recorded (2.446) and beta (0.456). This result refers to the changes in the independent variable ST with one time lead to (0.456) change in the dependent variable, and there is an explanation of the value of (37.6%) for any change in the dependent variable, because the value of the interpretation coefficient recorded a value of (0.376), which is high, this model is significant due to the value of estimated F which recorded more than tabled F in the level of significance of 0.05. this result support hypothesis H22.

Regarding sub hypotheses, H23 table 9 shows there is a significant effect of the independent variable FT on the dependent variable SE. The value of constant coefficient recorded (2.134) and beta (0.517). This result refers to the changes in the independent variable FT with one time lead to (0.517) change in the dependent variable , and there is an explanation of the value of (45.1%) for any change in the dependent variable, because the value of the interpretation coefficient recorded a value of (0.451), which is high, this model is significant due to the value of estimated F which recorded more than tabled F in the level of significance of 0.05, this result support hypothesis H23 . the trends and linearity of the relationship shown in figure 9-10,

Table 9: Regression Results

Var.	B0	B1	R2	F	Sig
OT	1.999	0.551	0.400	49.373	0.000
ST	2.446	0.456	0.376	44.556	0.000
FT	2.134	0.517	0.451	60.836	0.000
SP	1.469	0.667	0.516	78.941	0.000
		Ft 0.01 (1,74) = 7.077	Ft 0.05 (1,74) = 4.001		

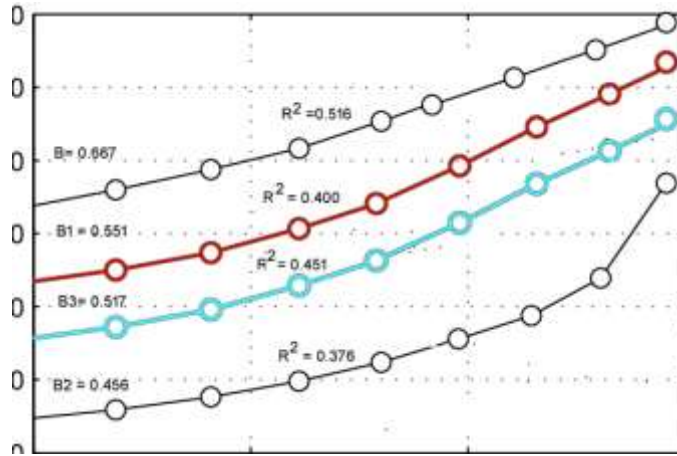


Fig. 9: Trends of Relationships

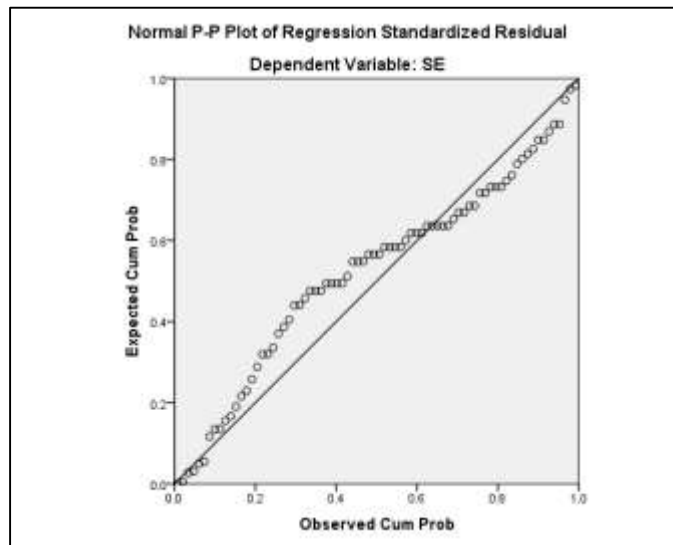


Fig. 10: Linearity of relationship

Regarding multiple regression table 10 and figure 11 indicates that there are positive and significant model with the variables of SP which recorded calculated F more than tabled F, the effect of OT with beta coefficient (0.295), and FT with beta coefficient of (0.282), but there is not significant for ST, and there is an explanation of the value of (53.1%) for any change in the dependent variable, because the value of the interpretation coefficient recorded a value of (0.531).

Table 10: Multiple Regression Results

Var.	B0	B1	R2	F	Sig
OT		0.295			0.002
ST	1.470	0.088	0.531	27.129	0.366
FT		0.282			0.011
		Ft 0.01 (3,72) = 2.758		Ft 0.05 (3,72) = 4.126	

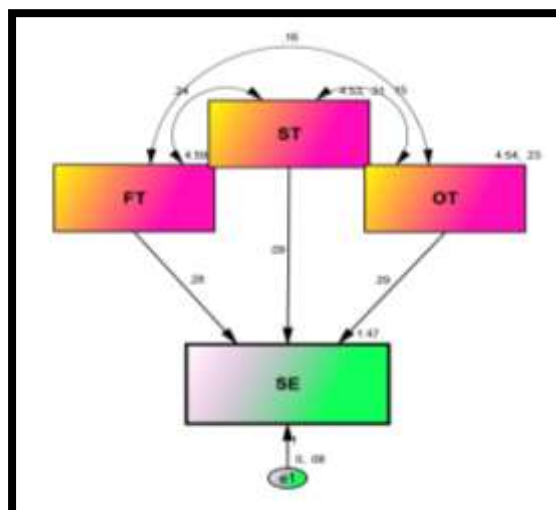


Fig. 11: Multiple Regression According to (SEM)

5. DISCUSSION AND CONCLUSION

Most Iraqi universities need to look for entrepreneurial projects, and in general, we can note that entrepreneurship exists as a hub for transformation in universities but still needs to increase attention. With regard to strategic plans, the broad mental work expressed in the a) Management philosophy through message, organizational vision, policy, goals and values, b) A rational or rational approach based on planning, c) A series of principles or features such as: future thinking, proactive thinking, freedom of thought, communication and interaction . And (d) dimensions of intervention either as a tool or as a quality, as a position or as part of the organizational culture of the business sector. This is how strategic actions are carried out in announcing the future vision of universities. Here scenario planning is a guide to decision making, in public administration, in small and medium-sized enterprises, and in decisions and organizational behavior.

For the foregoing and considering the theoretical assumptions and the results of research in the sample under study, it is possible to conclude that scenario planning is a specific factor clearly entrepreneurship. Strategy in the universities, although uncertainty scenarios, and the benefits that were characterized by technological development and poor planning towards managing the long-term.

The results have shown that there is a positive impact of system thinking on strategic entrepreneurship, which is consistent with a study of (Goldstein and Silberstang, 2009) that proves that system thinking is an important factor for successful entrepreneurship. The results also showed that there is a positive impact of strategic thinking on strategic entrepreneurship, and many studies have supported this idea, such as the study of (Hitt et al., 2001), There is also a positive impact of future thinking in strategic entrepreneurship, supported by multiple studies such as the study of (Short et al., 2009). In summary, scenario planning is a determining factor for successful strategic entrepreneurship.

6. REFERENCES

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