

Outsourcing relationships effect on small and medium enterprises success through the moderating effect of entrepreneurial competencies.

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Keywords

Outsourcing relationships, small and medium enterprises, success of SME, entrepreneurial competencies

Abstract

This study aims to study the entrepreneurial competencies, international outsourcing relationship components and SME success factors, and to develop a model to test the relationship between entrepreneurial competencies and outsourcing relationship, between outsourcing relationship and Small and medium enterprises success. Finally, it seeks to identify the most important among the entrepreneurial competencies that would affect an international outsourcing relationship and Small and medium enterprises success. The Study was conducted on SMEs in IT sector, which constitute the whole bulk of the industry. A questionnaire was administrated and the results did a relationship between the above-mentioned variables with varying degrees of importance.

Introduction

Small enterprises is defined as independent, single management and a relatively small share of the market (Bolton 1971). Watson et al, 1993 defined small business as owners of sole proprietorship and partnerships. Small business tends to have smaller number of customers (Cosh and Hughes 2000). The role of a small business in any economy is a critical especially in developing nations. Also, the role of its owner do affect the survival of the businesses especially in Small enterprises. This study aims to assess the importance of the owner's competency in an SME success through his ability to develop international relationships with clients or partners.

Literature review

Entrepreneurial Competencies

Developing a new business venture is one of the most complex degrees and it includes lots of uncertainties and conflicting relationships between behavior and performance along with many interactive factors such as motivations, cognitive abilities and environmental factors. (Campbell 2003). McCloy et al 1994 suggested that a successful entrepreneur would have to possess a requisite knowledge, master the requisite skill and choose to work on the tasks for some period at some level of effort. A successful entrepreneur is defined as an individual with traits, such as specific knowledge, motives, features, self-images, social roles and abilities, which result in venture's success (Bird 1995). Such Knowledge, motives, features would lead us to an entrepreneur are someone with a unique competencies. An Entrepreneurial competency is the capability of entrepreneurs to face effectively a critical situation by making sense of environmental constraints and by activating relational and internal specific resources' (Iandoli, 2007: 17) Man et al, (2002) identified six areas of competencies associated with the firm's performance, i.e., opportunity competencies, relationships competencies, conceptual competencies, organizing competencies, strategic competencies, and commitment competencies. In addition to competencies required by entrepreneurs, entrepreneurs are engaged in 3 important roles: the entrepreneurial role; the managerial role and the technical role (Baum & Locke 2004). The entrepreneurial role is important at the start of the business while the managerial role was for running the business. (Man & Lau, 2002).

Outsourcing relationship in ICT sector

Within the ICT sector, consisting largely of SMEs that develop and commercialize their own technology products, global commercialization is viewed as a necessary imperative, rather than a matter of choice (Crick and Spence 2005; Smallbone and North 1995). Research has identified that for SMEs and

entrepreneurial companies, the ability to create and use networks can facilitate product commercialization across international markets (Chetty and Wilson 2003; Coviello and Munro 1997). Nowadays according to recent developments in many industries, outsourcing started to get be deeply involved in more value added and core functions. Many US-based and European companies are getting to outsource main core functions in their businesses. One of the main antecedents of such is cost savings and profit proliferations in many areas. In nearly every industry, traditional ways of operations are getting to be replaced by a new form of operations based on strategic alliances between different functions, the pioneer in such field was the financial sector and still lots to come.(Alvarez, Couta and Disher, 2003). Business Outsourcing can be simply defined as devising a contract with an external organization to take primary responsibility of providing business processes (Yang, Kim, Nam, & Min, 2007). Business outsourcing has become an ever-increasing trend in today's highly competitive markets. Firms can embark either on internal off-shoring (by setting up their own centers or subsidiaries in foreign countries while maintaining full ownership and control) or external off-shoring (by handing over business functions to independent foreign providers). Outsourcing varies significantly from other modes of market entry such international joint ventures (Nahar, Kakola and Huda, 2001 a). In a pure outsourcing contract business relation between outsourcing service provider and outsourcing service user can be terminated after one contract, conversion/migration/re-engineering. International outsourcing or subcontracting can be considered as a one time or short term production cooperation since one company is using the production capacity of the other company. Many software & information system firms internationally outsource on a continuous basis to different outsourcing service providers who can provide high quality and competitive service, whereas in international joint ventures, the partners established a new legal entity.

The development of outsourcing relationships evolves through many phases. It starts with the cost stage where the focus of the outsourcer is to reduce the production costs and maximize his profits. The contract duties and responsibilities, goals underlying the arrangement are emphasized in this phase. However, cooperation is still important for mitigating internal and external hazards (Gottschalk and Saether, 2006). In the second stage, resource stage, the unique resources of the organization both tangible and intangible are viewed as a collection of resources distributed among industries. The value generation potential is a composite of the client characteristics, client vendor relationship & vendor characteristics. Then finally, the last phase in the relationship, the partnership phase, the emphasis is on intangibles such as trust, comfort, understanding, cooperation, shared values goals, and problem solving, interpersonal relationship and regular communication referred to as alliance. According to relational exchange theory, a partnership is dependent on common norms (expectations about behaviors), and norm development. The development of such relationship depended on how well each party meets his obligation, which will lead us to our mean determinant of an outsourcing relationship between the outsourcer and the outsourcee. Khon et al, 2004. Conducted a qualitative study to identify the supplier and customer obligations in an IT outsourcing relationship. They also conducted a survey to test the effect of such obligations on outsourcing success. They developed six main obligations to be satisfied by suppliers of an IT outsourcing relationship. These were (1) accurate project scoping, (2) clear authority structures, (3) taking charge, (4) effective human capital management, (5) effective knowledge transfer, and (6) building effective interorganizational teams. Kim et al, 2007, tested the effect of psychological contracting as a direct effect between Partnership and outsourcing success and it proved to have a significant mediating effect as well as a direct effect on outsourcing success.

SME success

Internationalization may reduce costs, extend innovation capabilities, aid knowledge acquisition, and thus produce competitive advantages (Geringer et al., 1989). In addition, the nature of the relationship between internationalization and performance has also been tested. Some scholars have proposed that the relationship between the two is positive due to the opportunities uncovered in other geographical regions (Delios and Beamish, 1999), the influence of corporate entrepreneurship (Luo et al., 2005), and the increase of market power (Kim et al., 1993). Another group of scholars found a negative or non-existent relationship between internationalization and performance, and argued that global diversification represents a cost related to the agency relationship between managers and investors (Denis and Yost, 2002). Some scholars posit a U-shape relationship between international diversification and

performance (Lu and Beamish, 2001). In the early stage, internationalization may increase a firm's costs because of newly generated complexity for governance. Nevertheless, performance will start to increase after firms get acquainted with the environment and acquire new knowledge and capabilities. Previous studies provided mixed results on the impact of internationalization on firm performance. Another article investigates the relationship between internationalization and performance. It suggests that performance is not determined by export intensity and the number of international agreements, but by the ability of firms to gain access to specific markets, such as North America. Moreover, the article finds that performance tends to suffer when SMEs internationalize through FDI, a finding that suggests a 'liability of foreignness' effect at international expansion. However, this negative effect can be offset by the international competencies that SMEs develop through intense export activity (Mazouchi and Zucchilla, 2003), which led to the choice of less costly modes of internalization as an alternative for IT companies seeking expansion. In order to reach to a measurement criteria, a study was conducted to test the application of balance scorecard dimensions of performance on the SMEs. The results indicated that SMEs usually adopt a bottom up approach. This means that although the framework is very capable of measuring and improving performance, Performance in SMEs is not based on any form of strategy (Hudson et al, 2001). The introduction of new performance measures in these companies was initiated both internally and externally. The main internal trigger was as a reaction to problems that had occurred. This supports the reactive management style found in the majority of SMEs. Other internal triggers focused on attaining a greater level of control, particularly for resource planning. External triggers mainly originated from customers that requested or imposed specific measures. However there are still some businesses who use a simple and may be a limited criteria, businesses apply some non-financial returns to measure its success as they survive longer in business (Chong, 2008). The owner's managers of SMEs use a hybrid approach on measuring performance due to their concerns on meeting the financial results as well non-financial returns. Financial measures include profits and turnover while non-financial measures are the long-term growth and survivals of the organizations.

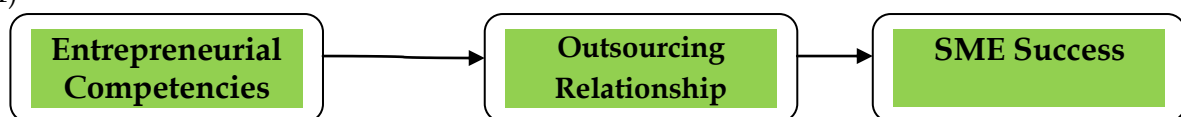
Entrepreneurial competencies and International Outsourcing Relationship

Entrepreneurs' networks and international knowledge acts as a moderating factor between internationalization and internationalization (Oviatt & Mcdougel ,2005). Networks help entrepreneurs identify international opportunities, establish credibility, and often lead to strategic alliances and other cooperative strategies. There are strong ties and weak ties in networks. As of Knowledge of the host country and the intensity of such knowledge do affect the internationalization speed. Feeny et al, 2004, developed 12 main vendor capabilities that are critical for Business process outsourcing provider's success. Such capabilities are as follows; Delivery Competency, Transformation Competency, and Relationship Competency.

Conceptual Framework

The following is the relationship between the variables, entrepreneurial competencies, outsourcing relationship & SME success.

Fig(1)



Hypothesis Development

H1: There is a relationship with statistical significance between entrepreneur competencies and outsourcing relationship.

H1-a: there is a significant relationship between opportunity seeking competencies and Outsourcing relationship.

H1-b: there is a significant relationship between relationship building competencies and Outsourcing relationship.

H1-c: There is a significant relationship between Conceptual competencies and Outsourcing relationship.

H1-d: There is a significant relationship between organizing competencies and Outsourcing relationship.

H1-e: There is a significant relationship between strategic thinking competencies and Outsourcing relationship.

H1-f: There is a significant relationship between commitment competencies and Outsourcing relationship.

H2: There is a relationship with statistical significance between outsourcing relationship and SME success.

H2-a: there is a significant relationship between Authority Structure as components of Outsourcing relationship and SME success.

H2-b: there is a significant relationship between dedicated staff as a component of Outsourcing relationship and SME success.

H2-c: There is a significant relationship between taking charge as a component of Outsourcing relationship and SME success.

H2-d: There is a significant relationship Knowledge sharing as a component of Outsourcing relationship and SME success.

H2-e: There is a significant relationship between effective inter-organizational relationship as a component of Outsourcing relationship and SME success.

H3: The entrepreneurial competencies variable is a moderating the relationship between outsourcing relationship and SME success.

Research Design

A cross sectional research design was conducted. A survey was administrated through a questionnaire using a Likert scale for entrepreneurial competencies, indicating the level of importance to be attached to each dimension for all six competencies dimensions, where 1 represent the least important and 5 is highly important. The scale for entrepreneurial competencies of Man And Lau (2000) was used in this study. The second variable is the outsourcing relationship using the psychological contracting dimensions from a supplier perspective listed in Khon et al, (2004) study. The scale was represent as follows; 1 as not fulfilled and 5 as completely fulfilled. Whereas the SME success was tested through 5 questions with different categories of choices. The profit increase was measured from 1 to 4, were 1 is the least profit and 4 is the over 20% increase in profits. The increase in number of employees were measured, as 1 is an increase from 5 to 9 and 5 as an increase over 20 new employees. Also, the number of projects and the number of projects conducted with the same client, in addition to the period of time the business has been involved in international outsourcing projects.

Sampling Method

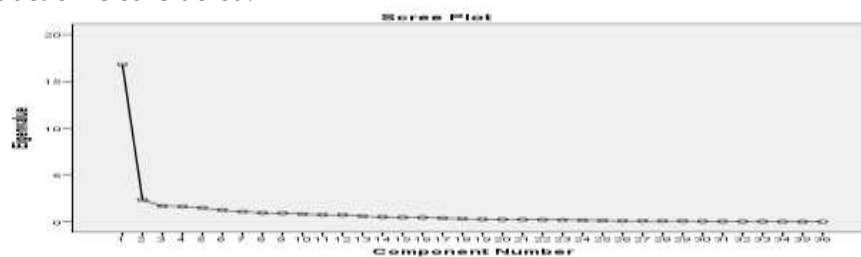
The questionnaire was distributed among Egyptian software companies located in Cairo and Alexandria governates in Egypt. The study is cross sectional , using the random sampling of the 200 CEO managers for 200 companies enrolled, 100 managers were interviewed. The List of companies were collected from the ITIDA governmental institute responsible for supporting software companies in Egypt.

Data Analysis

Factor analysis

Conducting the Factor analysis for the Entrepreneurial skills: Using Scree plot

As of the below mentioned, there are seven variables extracted. Such factors have been extracted using the scree plot to determine the number of factors to consider. The number of factors to consider is determined by detecting the highest point before the line starts downward sloping. However due to multi-collenarity represented in the high correlation between independent variables and each other, further factor reduction is considered.



Fig(2)

The scree plot started to slope downward as of the 4th factor where the eigen-value was 1.661 and the cumulative variation was equal to 52.162%. The following table illustrates the Eigen-values for the first 4 factors extracted and their percentage of variance. The total accumulative 52.162% percentage is an acceptable percentage to be considered in the social sciences studies.

(Table 1)

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	16.803	46.674	46.674
2	2.371	6.586	53.260
3	1.696	4.712	57.971
4	1.661	4.615	62.586

Entrepreneurial skills

The following table (2) shows the highest values of variation for each factor & the communalities of each (rotated components matrix).

Sentences	Factors				Communalities
	1	2	3	4	
Opportunity seeking skills					
1-identification services customer need				.784	.795
2-perceiveunmet consumer needs				.678	.755
3-take advantage of business opportunities				.686	.785
Relationship skills					
5- maintain a personal network of work contacts	.372				.656
6- understand what others mean by their words and actions	.554				.706
7- communicate both formally and informally	.798				.807
Conceptual skills					
1- Analyze, evaluate and Make decisions Intuitively	.318				.609
3- Monitor Progress Toward Objective	.501				.676
Organization Skills					
1- Plan Operations		.612			.820
2- Plan Organization		.784			.734
3- Keep the Organization		.606			.760
4- Organize resources		.776			.832
5- Coordinate tasks		.605			.762
6- Set Targets Sup Subordinates		.680			.809
8- Motivate	.527				
Strategic Skills					
2- Set contingency Plan			.338		.677
4. Move To Goals Systematically	.566				.571
5-Redesign the Depart To Meet Long Term Object			.726		.771
6- Align Current Action With Strategic Goals			.760		.576
7-Assess Short Term Tasks VS Long Term Directions			.561		.857
9- evaluateresultsVsStratGoals			.773		.742
10-Determine Strategic weighing costs and benefits			.565		
Commitment skills					
1- Dedicate to make venture work whenever	.752				.733
2- Refuse to let the venture fail whenever appropriate	.560				.829

The entrepreneurial skills is represented by six skills and they have been reduced as follows,

Opportunity skill: this skill is tested through 3 sentences, all the three sentences has been accepted and their highest variations where as follows, .784, .678, .686. All the three sentences were highly correlated with factor 4. As a result, factor four can be called the opportunity seeking competency

Relationship building skill: this skill is tested through 7 sentences. Four sentences, one, two, three, and four, have been removed and 3 sentences have been left. Sentence one through four were reduced as we have more than one factor with high values. The three remaining variations were as follows: .372, .554, .798. All three sentences are correlated highly with the first factor.

Conceptual skill: This skill is tested through 4 sentences. Sentence 2 & 4 have been reduced, while sentence 1 & 3 have been left. Sentence 2 & 4 have been reduced as they didn't show significant variations while sentence 1 & 3 did show variations of, .318, .501. Which is also highly correlated with first factor.

Organizational skill: This skill is tested through 9 sentences, Sentence 1 through 6 have shown the highest variation for the second factor while sentence, 7, 8 & 9 showed variations in more than one factor, as a result they have been excluded. The variations from sentence 1 till 6 & 8 where as follows, .660, .791, .652, .802, .672, .640, .527. All such sentences except 8 were showing a significant correlation with the second factor. As a result, we can call factor 2 as organizational competency factor.

Strategic Skill: This skill is tested through 10 sentences. Sentences 2, 5, 6, 7, 9, 10 have shown highest variations for factor 3, while, sentences 1,3,4,8 have variation or correlation for more than one factor as a result they have been discarded from data. The variations for sentences 2, 4, 5, 6, 7, 9, 10 s where as follows, .338, .556, .726, .760, .561, .773, .565. All such sentences except 4 were showing a significant correlation with the Third factor. As a result, we can call factor 3 as Strategic thinking competency factor.

Commitment skill: This skill is tested through 3 sentences. Sentence 1 & 2 have shown highest variations for factor 1, while sentence 3 have shown variation and correlation related to more than one factor as a result it has been discarded. Sentence 1 & 2 showed a variation of .752, .560. As a result, we can call factor one as relationship building, conceptual and commitment competency factor.

KMO and Bartlett's Test

After reducing the above-mentioned sentences, for the entrepreneurial skills scale KMO and Bartlett test was conducted to check the sample size validity.

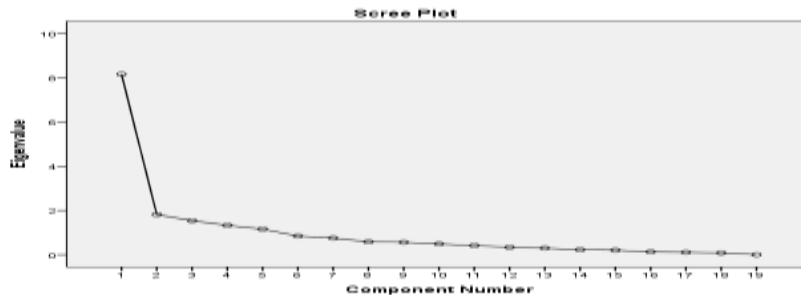
KMO and Bartlett's Test (Table 3)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.801
Approx. Chi-Square	2514.260
Bartlett's Test of Sphericity df	630
Sig.	.000

As of the above-mentioned table, the Kaiser Meyer Oklin Measure is .801, which is higher than .6 the minimum accepted for sample adequacy. Also the level of significance is .000 lower than .05 with a very high chi-Square 2514.26.

Factor analysis: the relationship components: Using Scree plot

As of the below mentioned, there are three factors extracted. Such factors have been extracted using the scree plot to determine the number of factors to consider.



Fig(3)

The scree plot (Fig 3) started to slope downward as of the 2th factor where the eign-value was 1.814 and the cumulative variation was equal to 37.513% (table 4). As a result, the third factor was considered where the cumulative variations is 54.170% in order to have an acceptable level of variations. The following table illustrates the Eign-values for the first 3 factors extracted and their percentage of variance. The total accumulative 54.170% percentage is an acceptable percentage to be considered in the social sciences studies.

(Table 4)

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	8.161	18.818	18.818
2	1.814	18.695	37.513
3	1.537	16.657	54.170

The following table (5) shows the highest values of variation for each factor & the communalities of each variable (rotated components matrix)

Table 5

Sentences	Factors			Communalities
	1	2	3	
Authority structure				
1- Define precisely the role of each party	.867			.849
2- Define precisely the responsibilities of each party	.868			.885
3- Layout clearly what each party is to perform	.826			.830
Taking Charge				
2. Complete the job with minimal disruption to client operations			.444	.747
3. Solve problems with minimal involvement of clients	.306			.848
Dedicated Project staff				
1. Assign adequate staff dedicated to the project (i.e., few staff changes)	.627			.635
2. Keep customer staff turnover low during the project			.332	.715
3. Replace any leaving customer staff with someone more qualified or with equivalent expertise			.727	.617
Knowledge Transfer				
1. Transfer knowledge to client's staff		.790		.758
2. Share best industry practices with clients		.813		.812
3. Transfer know-how of the product or service to clients		.835		.775
4. Deliver complete and comprehensive documentation (e.g., manuals, product and design specifications)		.929		.988
Effective Team Building				
1. Invests time in building a good relationship with clients			.790	.725
2. Have a common or joint sense of mission and purpose with clients			.813	.814
3. Work as a team with clients			.835	.717

The outsourcing relationship components

Relationship components are represented by six components and they have been reduced as follows:

Accurate project scoping: this component was tested through 3 sentences. There were more than one high level of variation at different factors. Consequently, the accurate project scoping variables has been totally excluded from analysis of this part.

Authority Structure: this component was tested through 3 sentences. The three sentences are correlated with factor 1. The correlation between sentences and factor 1 as follows, .867, .868, .826.

Taking charge: This component was tested through 3 sentences. The first sentence didn't show any significant correlation between any of the factors while the other two showed a significant correlation with factor 3 (.444), and factor 1(.306).

Dedicated project staff: This component was tested through 3 sentences. Sentences 2, & 3 are the ones with correlation with factor 3, .332, .727. As for the first sentence, it did show significant correlation with factors from 1.

Knowledge Sharing: This component was tested through 4 sentences. All sentences are correlated with factors 3. The correlation between sentences and factor 2 as follows, .790, .813, .835 & .929

Build inter-organizational team: This component was tested through 3 sentences. All sentences are correlated with factors 3. The correlation between sentences and factor 3 as follows, .790, .813, .835.

After reducing the above-mentioned sentences, for the relationship component, the factor analysis was conducted to check the sample validity through KMO and Bartlett test.

KMO and Bartlett's Test (table 6)

Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.707
	Approx. Chi-Square	1750.419
Bartlett's Test of Sphericity	Df	171
	Sig.	.000

As of the above-mentioned table, the Kaiser Meyer Oklin Measure is .707, which is higher than .6 the minimum accepted for sample adequacy. Also the level of significance is .000 lower than .05 with a very high chi-Square 1750.

Reliability test: As a result, the following table shows the reliability Cronback's alpha for the variables as follows:

(Table 7)

Scale	Cronback's alpha
Entrepreneurial competences	.936
Outsourcing relationship components	.923
SME success	.701

All of the Three main variables has been reliable since we have all of them with cronback alpha higher than .936, .923, .701

Testing the first hypothesis: To test the first hypothesis, Correlation & regression analysis was used to formulate a model. The correlation was used and tested using Spearman coefficient at significance level of 5% .

(Table 8)

Sentences	Correlation	Significance
Opportunity Seeking competency	.289	.000
Relationship building competency	.515	.000
Conceptual competency	.531	.000
Organization competency	.294	.000
Strategic thinking competency	.411	.008
Commitment competency	.316	.004

As of the Mentioned above table, the following is Spearman correlation coefficient. The Significance or the p- value is less than 0.05 and the correlations are highest with conceptual competency (.533), Relationship building competency (.515), strategic thinking (.411), which shows that there is a relationship between entrepreneurial competencies and outsourcing relationship, however this relationship is more significant with specific competencies such as conceptual competency, relationship building and strategic thinking competency.

Multiple regression:

(Table 9)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.535 ^a	.286	.227	.57743	1.994

The following is the liner regression equation where the R is .535 and R square is .286 which indicates the importance of the relationship, Also the F stat significance was less than .05 which indicates that the model is accepted and data collected follows a normal distribution as Durbin Watson indicator is approaching the 2 value.

(Table 10)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.691	.493		3.430	.001		
Opportunity seeking	-.012	.053	-.024	-.220	.826	.839	1.192
Relationship building	.356	.161	.356	2.211	.030	.388	2.580
conceptual	.340	.146	.362	2.326	.023	.416	2.405
Organization	-.090	.153	-.086	-.588	.558	.474	2.111
Strategic thinking	.035	.178	.033	.196	.845	.353	2.830
commitment	-.130	.123	-.146	-1.057	.294	.529	1.890

The following is the liner regression equation where R square is .28.6, and data collected follows a normal distribution as Durbin Watson indicator is approaching the 2 value.

The following is the multiple regression equation as a component of outsourcing relationship components and its relationship with entrepreneurial competencies:

$$(\text{Outsourcing relationship}) = 1.691 - 0.012X_1 + .356X_2 + .341X_3 - .09X_4 + .035X_5 - .130X_6 + e.$$

Where,

X1: Opportunity seeking competency

X2: Relationship building competency

X3: Conceptual competency

X4: Organization competency

X5: Strategic Thinking competency

X6: Commitment Competency

This Model illustrate the following as of the entrepreneurial competencies and their relationship with the fulfillment of outsourcing relationship components.

As of the opportunity seeking, the less important opportunity seeking competency, the higher the fulfillment of the relationship components which is not plausible to happen. Also, there is an error of more than 82.6%, as a result, we cannot consider it due to the high level of error, so we can consider that opportunity seeking is more of no effect on outsourcing relationship fulfillment or with zero value.

As for the relationship building, the more the important relationship-building competency, the more fulfillment of the relationship components, the coefficient is .356 which is considered to be with a moderate effect on relationship components also the level of error is less than 5%.

As for conceptual competency, this competency has a high coefficient relative to other competencies (.345) and low level of error less than .05. As a result, we can say the higher the importance

of the effective decisions making, progress monitoring and abstract thinking, the more the outsourcing relationship components fulfillment.

As of the organization competency, this competency has a negative small coefficient (-.09). So the results show that the less organization competency, the higher the fulfillment of the relationship components. However, there is an error of more than 55.8%, as a result, we cannot consider it due to the high level of error, so we can consider that organization competency is more of no effect on outsourcing relationship fulfillment or with zero value.

As of the strategic thinking competency, this competency has a small coefficient (.09). So the results show that the less the commitment competency, the higher the fulfillment of the relationship components which isn't plausible to happen. However, there is an error of more than 84.5%, as a result, we cannot consider it due to the high level of error, and so we can consider that strategic thinking competency is more of no effect on outsourcing relationship fulfillment or with zero value.

As of the commitment competency, this competency has a small negative coefficient (-.13). So the results show that the more strategic thinking competency, the higher the fulfillment of the relationship components. However, there is an error of more than 29.4%, as a result, we cannot consider it due to the high level of error, and so we can consider that commitment competency is more of no effect on outsourcing relationship fulfillment or with zero value.

Testing Hypothesis 2: (discriminant analysis)

Eigenvalues (table 11)

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.062 ^a	100.0	100.0	.242

Wilks' Lambda (Table 12)

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.942	4.754	2	.093

As of the above tables (table 12 & 13) the Wilks' Lambda, shows a significance .093, However, the Eigenvalue is .062 which shows that the Outsourcing relationship components only explain 6.2% of the variations in dependent variable (SME success). In addition, the canonical correlation shows an association of only 24.2% between the discriminant function and the dependent variable. The equation for the Discriminant function is as follows:

$D1 = -4.352 + 1.032 X7 + .097 X12$ where, X7 is the authority structure and X12 is building effective inter-organization relationships, however, Authority structure shows a significance of less than .05 while building an effective inter-organization skills shows a significance more than .05. Also, as of classification results about 82% of the cases has been correctly classified.

Testing Hypothesis 3:

Eigenvalues (table 13)

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.222 ^a	100.0	100.0	.426

Wilks' Lambda (table 14)

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.818	15.644	4	.004

As of the above tables the Wilks' Lambda, .818 shows a significance of less than .05. In addition, the Eigenvalue, which shows that the Outsourcing relationship components when associated with Entrepreneurial competencies it explain 22.2 % of the variations in dependent variable (SME success). Also the canonical correlation shows an association of 42.6 % between the discriminant function and the dependent variable.

The equation for the Discriminant function is as follows:

$D1 = -1.579 - .095X1 + .839X6 + 1.032X7 - .095X12$ where, $X1$ is the opportunity seeking competency, $X6$ is the commitment competency, $X7$ is the authority structure and $X12$ is building effective inter-organization relationships, however, Authority structure & commitment skills shows a significance of less than .05 & building an effective inter-organization relationship, opportunity seeking sub-variables show a significance more than .05. Also, as of classification results, 90% of the cases has been correctly classified.

Conclusion

As of the above findings, there is a relationship with statistical significance between entrepreneurial competencies and Outsourcing relationship. The most important of those competencies was the relationship building and the conceptual competencies for the outsourcing relationship. There is a relationship between Outsourcing relationship and SME success. However, such a relationship is not enough without the moderation effect of the entrepreneurial competencies. As a result, the entrepreneurial competencies act as a basis for outsourcing relationship and it acts as a strong factor in affecting the business success.

Research Limitations and Future Research

This research is conducted on two governates in Egypt, and during research, there has been a sudden shutdown in the number of companies in IT industry, which affected massively lots of the results, and led to loss of many outsourcing opportunities. In addition, many other macro-environmental changes did occur during the field study, which can affect the relationship strength among variables. Another research, could be conducted after macroeconomic stabilization to identify the effect of such Macro-environmental factors on outsourcing relationships.

References

- Bolton, J.E. (1971). 'Report of the Committee of Enquiry on small firms'. *Bolton Report Cmnd.* 4811. London: HMSO.
- Watson, J. Everett, J. (1993), 'Defining Small Business Failure', *International Small Business Journal*, Vol.11, No.3, pp. 35-48.
- Hughes, Cosh, A. and Weeks M. (2000), 'The Relationship Between Training and Employment, Growth in Small and Medium-sized Enterprises', *Centre for Business Research and Dept of Applied Economics*, University of Cambridge.
- Campell, K. (2003), *Smarter Ventures: a survivor's guide to venture capital through the new cycle*, London: FT-Prentice hall.
- Mccloy, U.A., Campbell, J. P. and Cudeck, R. (1994), 'A confirmatory test of a model of Performance Determinants', *Journal of Applied Psychology*, Vol. 79, pp. 493 - 503.
- Baum, J.R. and Locke, E.A. (2004), 'The relationship of entrepreneurial traits, skills and motivation to subsequent venture growth', *Journal of Applied Psychology*, Vol. 83, No.4, pp.587-89.
- Man T., Lau, C. and Chan, T. (2002) The competitiveness of small and medium enterprises : A conceptualization with focus on entrepreneurial competencies, *Journal of Business Venturing*, Vol. 17, No.2. pp. 123-142
- Gottschalk, P. , and Solli-Sæther, H. (2006), 'Maturity model for IT outsourcing relationships', *Industrial Management & Data Systems*, Vol. 106, No.2 . pp. 200 - 212.
- Christine, K. Soon, Ang. ,and Detmar W, S. (2004), 'IT Outsourcing Success: A Psychological Contract Perspective Information Systems Research', *Information Systems Research*, Vol 15, No. 4, pp. 356-373.
- Hudson, M., Smart, A., and Bourne, M. (2001), 'Theory and practice in SME : performance measurement systems', *International Journal of Operations & Production Management*, Vol. 21, No.8, pp. 1096-1115.
- Kim, R. D. Cheon, J, M. Beugré, D, C. and Coverdale, K, T.(2003) 'Information Systems Outsourcing: Exploration on the impact of Outsourcing service Providers' service quality'. *IACIS 2003*, p. 143 - 148.
- Lu, Jane, W. and Beamish, Paul, W. (2001), 'The internationalization and performance of SMEs', *Strategic Management Journal*, Vol. 22, No.6-7, pp. 565-586.