

Analyzing the Relationship between Market Orientation and Corporate Entrepreneurship

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Abstract

This study aims to analyze the relationship between market orientation (MO) and corporate entrepreneurship (CE). A total of 450 questionnaires were distributed among the three main mobile organizations in the telecommunication sector in Egypt within Cairo governorate geographic zone. The research findings show that market orientation dimensions have a strong significant and positive relationship with corporate entrepreneurship dimensions. And that the corporate entrepreneurship activities practiced by mobile companies in Egypt, has been significantly affected by the market orientation of these organizations. It indicates that market orientation creates an environment that can foster corporate entrepreneurship among middle and top management to satisfy the changing needs and wants of customers. The research findings suggest that organizations need to increase the responsiveness to the changes that occur in the customers 'needs and wants. The managers of organizations should believe in the importance of the corporate entrepreneurship and communicate this belief to their employees. They need to offer support to entrepreneurial activities within the organization by building a reward/reinforcement system that will encourage employees to innovate. This research contributes to the existing corporate entrepreneurship literature through in-depth analysis of the corporate entrepreneurship and the market orientation sub-dimensions. It also provides an insight on the telecom market in Egypt which is one of the promising sectors of the Egyptian economy.

Keywords: corporate entrepreneurship, market orientation, intrapreneurship, telecommunication sector

1. Introduction

Globalization opened the gates of worldwide movement towards interconnected and interdependent economic, financial, trade and communication integration. Organizations need to consider staying abreast of worldwide trends. Corporate Entrepreneurship helps organizations to exploit the trends of globalizations across the borders.

Due to the increased growth in globalization, and accordingly the rapid change of customer needs and expectations, companies recently face aggressive competition in delivering superior quality products and services to their target customers. Therefore, they have to be skilful in managing customer relationships, as well as managing products.

To grow and survive in the global market, companies have to gain competitive advantages through adapting with the continually changing needs and expectations of customers to offer them more value and satisfaction than competitors. They have to be more market-oriented to be able to identify and respond quickly to the changing market needs. Thus, a market-oriented company helps in enhancing its innovation skills to develop its products and services offered to the customers according to the anticipated market changes.

Entrepreneurial activity at the corporate level is an essence for advancing the economic growth of the country. Therefore, it is vital for the company to adopt entrepreneurial behaviour, that leads to the identification of opportunities and implementing good and new ideas. Creating a strong corporate entrepreneurship's culture helps in enhancing the financial performance of the organization, as well as improving its market position. The purpose of this research is to analyze the relationship between market orientation (MO) and corporate entrepreneurship (CE) in Egypt as a developing economy.

2. Literature review

2.1 Corporate entrepreneurship (CE)

Business development relies on corporate entrepreneurship (Antonic and Antonic, 2011a) as it helps in promoting overall organizational effectiveness. Several scholars attempted to define CE. Wolcott and Lippitz, (2007) has defined CE as the procedures by which groups inside an existing organization consider, encourage, dispatch and deal with new business that is different from the parent organization yet using the parent's resources, market share, capacities of different assets. Morris and Kuratko, (2006) identified CE as a term used to depict entrepreneurial conduct inside existing medium sized and large corporations. While Covin and Slevin, (1991), Churchill, (1992); and Sharma and Chrisman, (1999) viewed CE as an operational context process. Churchill, (1992) discussed that CE individuals related to an existing association generate a new organization or establish renewal or renovation inside that association. At the same time Covin and Slevin, (1991) addressed it as a way of revealing and building up an opportunity to generate value through renovation. Whilst Sharma and Chrisman,

(1999) defined CE as the expertise and the related opportunities set by using new internal resource mixes. Zahra, (1991) expressed CE as the constructing of innovative businesses inside built up firms to enhance organization's financial performance and improve its position among the competitors. On the other hand, Guth and Ginsberg, (1990) looked at CE as the introduction of new business inside existing firms through inside innovation or investment and the change of firms through re-establishment of the main concepts on which the organization was built.

These previous definitions show an accord (Adonisi and Wyk, 2012) that corporate entrepreneurship is described by the creation of new businesses inside existing organizations, the change or resurrection of organizations through the reestablishment of key factors of businesses and the renovation and renewal inside an established organization.

The researchers define corporate entrepreneurship as the creation and the implementation of new ideas, businesses and processes inside an existing organization.

In addition to the large number of external factors enhancing the corporate entrepreneurship, there are some organizational dimensions that play an essential part in the evolution and the support of corporate entrepreneurship (Guth and Ginsberg, 1990; Kuratko et al., 1990; Hornsby et al., 2002). Management support for corporate entrepreneurship (CE1), work discretion (CE2), rewards and reinforcement (CE3), time availability (CE4) and organizational boundaries (CE5) are the main dimensions that influence corporate entrepreneurship (Hornsby et al., 2002).

Management support (CE1) is thought to be the best way to maximize the final results of the corporate entrepreneurship as it helps organization to be innovative. It is the readiness of upper management to encourage, facilitate and give vital assets and empowerment for ventures containing entrepreneurial and creative activities (Pinto and Mantel, 1990; Hornsby et al., 1993; Hisrich et al., 2008). The management support guarantees that employee's unconventional work is appreciated and endorsed by upper management. More or less, upper management carries out an extremely vital part in making an organizational environment wherein workers are firmly urged to take part in entrepreneurial actions (Seshadri and Tripathy, 2006). Many researches recommend that presence of a solid management support upgrades the entrepreneurship and the renovation inside the business (Damanpour and Schneider, 2006; Chandler et al., 2000).

Work discretion (CE2) is a dimension related to corporate entrepreneurial achievements. It alludes to the degree of independency given to entrepreneurial activities inside the organization. In promoting entrepreneurial activities organizations have to make their employees free in taking decisions concerning their entrepreneurial work and never criticize them if anything wrong happens during the process (Kuratko and Hodgetts, 2007), this freedom can foster innovation in companies (Rutherford and Holt, 2007). Dess et al., (2003) have also concluded that there is a solid connection between work discretion and the final results of the entrepreneurial activities. Work discretion has also a strong relationship with the upper management support, which can increase employees' risk-taking ability that is considered as an important part in fostering corporate entrepreneurship.

Rewards and reinforcements (CE3) are the realization of employees that their entrepreneurial and renovation activities are perceived by the upper management. Rewards are thought to be a powerful device to diminish employees' hatred towards taking risks which is fundamental for entrepreneurial activities to succeed (Demirci, 2013). Successful rewards structures that encourage innovative activities must contemplate objectives, inputs, accentuation on employees' accountability and incentives based on results. The proper application of rewards systems can encourage managers' readiness to handle the risks related to entrepreneurial actions (Hornsby et al., 2002).

Time availability (CE4) means that the upper management has to give enough resources including time for employees to complete their entrepreneurial activities (Demirci, 2013). Employees need to see this availability of resources and consider it as an advantage that enhances their abilities to innovate and implement new ideas. When resources including time are available this can foster the employees' willingness to take risk related to the implementation of innovative ideas and encourage them to consider such activities (Covin and Slevin, 1991; Kreiser et al., 2002). This dimension is used to measure the load of employees and to make sure that they have enough time to engage in entrepreneurial activities and that their jobs are designed to support their contribution in accomplishing short and long term organizational objectives (Hornsby et al., 2009)

Organizational boundaries (CE5) is the existence of flexible organization structure that support and encourage entrepreneurial activities; this flexibility has an endless effect on the entrepreneurial accomplishment of the organization. Miller et al., (2007); Hornsby et al., (2009) have concluded that the flexibility of the organizational boundaries can lead to the facilitation of innovation and entrepreneurial activities. The intercommunication within the organizational boundaries foster the circulation of information between the organization and its environment (Austin et al., 2006), this circulation of information can facilitate the employees interest in innovation and entrepreneurial activities.

2.2 Market Orientation (MO)

Market orientation is the outcome of implementing the marketing philosophy of the organization, with a focus on both customers and consumers as well as the main competitors (Kok et al., 2003). Previous research studies have shown that the levels of market-and entrepreneurial orientation are vital for supporting the activities accomplished by the organization, in order to exploit the different opportunities offered by the market (Miles and Arnold, 1991; Zahra and Covin, 1995; Hurley and Hult, 1998; Wiklund, 1999; Atuahene-Gima and Ko, 2001; Matsuno et al., 2002; Kara et al., 2004; Kumar et al., 2011). Barrett and Weinstein (1997), revealed the prominent relationship of market orientation with corporate entrepreneurship. Thus, market orientation is considered one of the most important key factors, on which businesses depend to direct their activities to achieve sustainable competitive advantage in the organization (Barrett and Weinstein, 1997). However, it can be seen that the current literature considered minimally the importance of market orientation as a vital success strategic factor in the organization (Cadogan et al., 2002; Kok et al., 2003; Li, 2005; Li et al., 2006; Schindehutte et al., 2008; Gopal, 2008).

Therefore, market orientation can be defined as a skill adopted by the firm to support a more precise analysis of its internal and external environment (Reza and Tajeddini, 2011). The concept depends on overseeing the markets in order to accomplish the required changes founded on predicting current and potential customers' needs and preferences as well as the capacity of the organization to correspond with customers, suppliers and distributors (Schindehutte et al., 2008). Firms that adopt market orientation as a vital strategy, help in enhancing the innovation skills of that business to improve their products and services. Thus, firms can achieve greater competitive advantages, gain higher revenues, higher level of competitiveness (Ramirez et al., 2014) and so improving the business performance (Baker and Sinkula, 2009; Barrett and Weinstein, 1999).

On the other hand, Kohli and Jaworski showed that market orientation is concerned mainly with market intelligence's collection, responsiveness, usage and how different opportunities and strategies are disseminated across various departments in the organization (Kohli and Jaworski, 1990; Jaworski and Kohli, 1996). It is about how organizations face opportunities and threats found in the external environment to respond to the underlying and changing future customer needs (Kumar et al., 2003; Atuahene-Gima et al., 2005) to deliver superior value to them (Jimenez-Zarco et al., 2011). In an attempt to gain and save their competitive position, firms have to foster a market orientation, that allows them to manage proactively, rather than reactively (Kumar et al., 2011). The more the organization is market oriented, the more customer satisfaction, which leads to more and repeated customer purchases (Felgueira and Rodrigues, 2012). Practically, a proactive market orientation is vital for the success of corporate entrepreneurship (Barrett and Weinstein, 1997), it helps in creating an innovative and opportunistic culture that enhance profitability in the organization (Maatoofi and Tajeddini, 2011).

As defined previously, market orientation (MO) is the consequence of implementing the marketing concept, represented in the set of activities, processes, and behaviors done in an organization (Kok et al., 2003; Kohli and Joworski, 1990). According to the philosophical approach (literature-based perspective), the marketing concept includes three main pillars: (1) customer focus, (2) coordinated marketing, and (3) profitability (Kotler, 2003). Meanwhile, from the field-based view, the market orientation construct is the operational practice of the first two pillars of the marketing concept: customer focus and coordination (Kohli and Joworski, 1990), where profitability is pointed out as a result of a market orientation rather than being one of its components. Thus, a market orientation involves (1) engagement of one or more of the organizational departments in building up a comprehension of the current and future customers' needs as well as the factors influencing them, (2) sharing of this comprehension with other departments, (3) participation of different departments in activities geared toward fulfilling chosen customer needs. As such, a market orientation can be viewed as the organization-wide generation, dissemination, and responsiveness to market intelligence.

Joworski and Kohli (1993) therefore, have identified intelligence generation (MO1), intelligence dissemination (MO2) and responsiveness (MO3) as the three main components of market orientation and named them as MARKOR dimensions. Even though that this view asserts the focus of a market orientation (MO) on the actual behaviors of the organization (Roach et al., 2014), it didn't declaim market orientation (MO) as a characteristic of organizational culture (Lam et al., 2012). Nevertheless, it reinforces the main logic of customer being the main focus of the market orientation concept (Demirbag et al., 2006; Eggers et al., 2013; Gaur et al., 2011; Jiménez-Zarco et al., 2011). These three elements will be subsequently discussed in more detail.

Intelligence generation (MO1). Customer focus is the focal component of a market orientation that depends on actions taken relied on market intelligence in addition to the verbalized customer opinions. Market intelligence is the starting point of a market orientation. It reveals a broad concept that entails more than just considering current as well as future customers' needs and preferences, but also analyzing the external environmental forces (task and macro environment) that affect them, such as government regulations and competition and other environmental forces (Filiari, 2015; Kohli et al., 1993; Kohli and Joworski, 1990). Environmental scanning activities are essential part of market intelligence generation.

Although identifying and anticipating customer needs is the basis of a market orientation, defining customers is essential and a difficult task as well. Recently, the market seems to be the adequate focus that

involves end customers and distributors, as well as the external environmental forces that influence their needs and preferences (Kohli and Joworski, 1990). The market intelligence generation depends on a multitude of interdependent tools not just on customer surveys. In a market oriented organization, the generation of market intelligence is not the responsibility of its marketing department solely (Webster, 1988). According to the second pillar (coordinated marketing) of a market orientation, different individuals and departments throughout an organization should engage in market intelligence generation. Intelligence generated at one place in an organization should be exchanged effectively with other parts (Kohli and Joworski, 1990). This leads us to the second element of a market orientation, Intelligence dissemination.

Intelligence dissemination (MO2). According to the field-based view, coordinated marketing is linked to market intelligence. This view is fostering the operationalization of the construct by identifying the relevant form of coordination. To adapt to market needs, an organization must communicate, disseminate, and maybe even sell market intelligence to relevant departments and individuals, which occurs formally in sort of vertical communication, and informally in sort of horizontal interdepartmental communication (Kohli et al., 1990). Whereas the formal transmission of intelligence is extremely important, the informal transmission is acting as a strong and powerful tool for employees to maintain their relationship with customers to adapt with their needs and preferences. The lateral flow of market intelligence (horizontal communication) that happens within and across departments of an organization (Daft and Steers, 1985), foster employees and departments to participate to achieve the organizational goals. Thus, horizontal communication of market intelligence within an organization represents a kind of intelligence dissemination (Kohli and Joworski, 1990).

Responsiveness (MO3) As the third component of a market orientation, responsiveness refers to the action taken to respond to the generated and disseminated market intelligence (Amin et al., 2016; Filieri, 2015; Kohli et al., 1993; Kohli and Joworski, 1990). Responsiveness to market intelligence is concerned with the response to the market needs, which forms the identification of market segments and accordingly selecting the target markets. It also focuses on the development and implementation of marketing programs and designing product offerings that adapt to the current and future customer needs. Accordingly, producing, distributing and promoting the designed products in a manner that arouses a favourable response to the end-customer.

3. Research objectives

From reviewing previous studies, the research objective was developed as follows: Analyzing the relationship between market orientation and corporate entrepreneurship.

4. Research hypothesis

Markets and marketing principles and concepts are affected by the changing and uncertain environment. Globalization has eliminated boundaries between markets. Markets differ, coincide, distribution channels are restructured and redesigned (Sciascia, et al., 2006). To create value and to work effectively in dynamic markets organizations must contribute in some entrepreneurial actions (Zimmerman, 2010).

The relationship between corporate entrepreneurship and market orientation is the foundation for supporting renovation and sustaining a competitive advantage (Barret and Weinstein, 1998; Weerawardena and Cass, 2004) in local or international markets.

Although the analysis of the previous literature has concluded that there is a significant positive relationship between market orientation and corporate entrepreneurship (Barret Weinstein, 1998; Liu, et al., 2002; Luo et al 2013; Muslim et al., 2016). Yet, these studies concluded that the relationship between market orientation and corporate entrepreneurship needs more investigation (Baker and Sinkuk, 2009; Merlo and Auh, 2009) and they call for future research to further investigate this relationship in the context of other sectors and countries.

Accordingly, this study examines the relationship of corporate entrepreneurship and market orientation. The research hypothesis is developed as:

H1: Market orientation will be positively related to corporate entrepreneurship.

5. Study sector and data collection

The communication and information technology sector in Egypt is a major sector with a number of employees that exceed 200.000 (Central Agency for Public Mobilization and Statistics, CAPMAS 2016). According to T. Kearney's, (2016) Global Services Location Index (GSLI) Egypt is the market leader in the Middle East and North Africa region and no. 16 in the world.

This research aims to analyze the relationship between market orientation and corporate entrepreneurship in the Egyptian Telecommunication sector. The communication industry was selected for this study, because the national telecom market is highly dynamic, and the demand for varied telecom services is recognized by a consistent and sustainable growth, which makes innovation and entrepreneurial activities vital for the growth and the development of this sector.

Total number of 420 questionnaires out of 450 were collected from the three communication companies

operating in Egypt (Only 394 were complete and valid) with a response rate of 93.8%. They were filled out by managers at top and middle management at these companies.

6. Research measures

The questionnaire, based on the MARKOR scale proposed by Kohli et al., (1993) was used to measure market orientation. Accordingly, three factors of market orientation are measured namely intelligence generation (10 items), intelligence dissemination (8 items), and responsiveness (14 items). Corporate entrepreneurship was measured using the Corporate Entrepreneurial Assessment Instrument (CEAI), a 42 items construct developed by Hornsby et al., (2002). It consists of five factors including management support (17 items), work discretion (10 items), rewards/reinforcement (5 items), time availability (6 items), and organizational boundaries (5 items), (Hornsby et al., 2002). The different items of the two instruments were measured on a five-point Likert scale ranging from “1= strongly disagree” to “5= strongly agree”.

7. Statistical Analysis and results

Table 1. The descriptive statistics

	N of Items	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach's Alpha
CE1 (Q1:Q17)	17	3.8579	.96511	-1.739	1.490	.977
CE2 (Q18:Q27)	10	3.8934	.96588	-1.671	1.299	.957
CE3 (Q28:Q32)	5	3.8350	.94806	-1.590	1.215	.912
CE4 (Q33:Q38)	6	3.8507	.96360	-1.571	.989	.932
CE5 (Q39:Q43)	5	3.9132	.95597	-1.685	1.415	.912
MO1 (Q44:Q53)	10	3.8074	.93058	-1.599	1.020	.954
MO2 (Q54:Q61)	8	3.8845	.94652	-1.626	1.160	.943
MO3 (Q62:Q75)	14	3.8387	.94955	-1.639	1.193	.970

Descriptive statistics of the variables used in the study are presented in Table 1. shows that: The mean values vary between 3.8 and 3.9 indicating that respondents' answers were in the positive direction, while the standard deviation was less than 1 which means that most of the numbers are very close to the average.

The skewness and kurtosis values are small values closer to zero, which means that the data is normally distributed.

To examine the reliability of the items Cronbach's Alpha was calculated and the results were all above 0.7 which means that the scales used are reliable.

Table 2. Demographic characteristics of the sample

Variable	Levels	Frequency	Percent	Cumulative Percent
Age	30-40	149	37.8	37.8
	41-50	191	48.5	86.3
	Above 51	54	13.7	100.0
	Total	394	100.0	
Gender	Male	157	39.8	39.8
	Female	237	60.2	100.0
	Total	394	100.0	
Education	University Degree	344	87.3	87.3
	MBA	39	9.9	97.2
	DBA	11	2.8	100.0
	Total	394	100.0	
Position	Middle	283	71.8	71.8
	Top	111	28.2	100.0
	Total	394	100.0	

As shown in Table 2. most of the respondents are between the age of 41 and 50 years (n= 191) representing 48.5% of the sample. The second largest group is the respondents between the age of 30 and 40 years (n= 149) representing 37.8 % of the sample. While the group aged 51 and above is the least (n=54) representing 13.7% of the sample.

Female respondents constitute the larger part of the respondents with a percentage of 60.2 %, while male respondents represent 39.8 %. The biggest group of the respondents is the university degree holders representing 87.3% of the respondents, followed by MBA holders representing 9.9% and finally the DBA holders representing 2.8%. On the other hand, 71.8% of the respondents belong to the middle management while 28.2 % belong to the top management.

Table 3. Nonparametric Correlations (Spearman)

		CE1	CE2	CE3	CE4	CE5
Age	Spearman's Correlation	-.066	-.026	-.067	-.024	-.009
	P-value	.192	.611	.185	.628	.863
Gender	Spearman's Correlation	.081	.108*	.175**	.149**	.200**
	P-value	.108	.031	.000	.003	.000
Education	Spearman's Correlation	-.055	-.127*	-.121*	-.064	-.046
	P-value	.279	.012	.016	.208	.362
Position	Spearman's Correlation	-.003	-.026	-.072	-.030	.037
	P-value	.947	.611	.155	.552	.460

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 3. shows the calculations of spearman correlation between the corporate entrepreneurship dimensions and the descriptive variables. This table shows that there is a significant positive correlation between gender and work discretion (Correlation is significant at the 0.05 level (2-tailed), and a strong significant positive correlation between gender and rewards/reinforcement, time availability and organizational boundaries (Correlation is significant at the 0.01 level (2-tailed). While a significant negative correlation exists between education and work discretion and rewards/reinforcement (Correlation is significant at the 0.05 level (2-tailed).

Table 4. Pearson Correlations

		CE1	CE2	CE3	CE4	CE5
MO1	Pearson Correlation	.965**	.953**	.927**	.943**	.914**
	P-value	.000	.000	.000	.000	.000
MO2	Pearson Correlation	.972**	.960**	.923**	.947**	.937**
	P-value	.000	.000	.000	.000	.000
MO3	Pearson Correlation	.976**	.969**	.929**	.951**	.955**
	P-value	.000	.000	.000	.000	.000

** . Correlation is significant at the 0.01 level (2-tailed).

To test the hypothesis the Pearson correlations was used. Table 4. shows the calculation of Pearson correlations between corporate entrepreneurship dimensions and the market orientation dimensions. The results of table 4. show that there is a strong significant positive correlation between all corporate entrepreneurship dimensions and the market orientation dimensions at the 0.01 level (2-tailed). Therefore, market orientation is positively related to corporate entrepreneurship. Thus, the research hypothesis is accepted.

Table 5. Multiple Regression Models

Variable	F(df)	P-value	R-Square	Adjusted R-Square	Std. Error of the Model
CE1					
MO3	8013.290 (1;392)	.000 ^b	.953	.953	.20869
MO3, MO2	6191.454 (2;391)	.000 ^c	.969	.969	.16928
MO3, MO2, MO1	4450.304 (3;390)	.000 ^d	.972	.971	.16322
CE2					
MO3	5941.625 (1;392)	.000 ^b	.938	.938	.24060
MO3, MO2	3744.405 (2;391)	.000 ^c	.950	.950	.21571
MO3, MO2, MO1	2561.363 (3;390)	.000 ^d	.952	.951	.21310
CE3					
MO3	2480.997 (1;392)	.000 ^b	.864	.863	.35064
MO3, MO1	1433.753 (2;391)	.000 ^c	.880	.879	.32925
MO3, MO1, MO2	986.082 (3;390)	.000 ^d	.884	.883	.32481
CE4					
MO3	3730.909 (1;392)	.000 ^b	.905	.905	.29750
MO3, MO2	2267.750 (2;391)	.000 ^c	.921	.920	.27216
MO3, MO2, MO1	1579.131 (3;390)	.000 ^d	.924	.923	.26677
CE5					
MO3	4039.390 (1;392)	.000 ^b	.912	.911	.28469
MO3, MO2	2172.869 (2;391)	.000 ^c	.917	.917	.27536
MO3, MO2, MO1	1488.076 (3;390)	.000 ^d	.920	.919	.27201

To measure the extent to which market orientation can predict corporate entrepreneurship the forward stepwise regression analysis was used. Table 5. shows the multiple regression models, from this table we conclude that all the regression coefficients for the Market orientation dimensions are positive and significant coefficients because P-value < 0.001. the results shown in this table indicate that with management support (CE1) as a dependent variable the three market orientation dimensions entered the prediction with a variance of 97.1%

in the dependent variable, responsiveness (MO3) explained the largest part of the prediction with 95.3% while intelligence dissemination (MO2) and intelligence generation (MO1) formed only 1.8% of the total prediction. With work discretion (CE2) as dependent variable the market orientation dimensions entered the prediction with a variance of 95.1% in the dependent variable, responsiveness (MO3) explained the biggest part of the prediction with 93.8% while intelligence dissemination (MO2) and intelligence generation (MO1) formed only 1.3% of the total prediction. the three market orientation dimensions entered the rewards/ reinforcement (CE3) prediction with a common variance of 88.3% in the dependent variable, responsiveness (MO3) explained the largest part of the prediction with 86.3% while intelligence generation (MO1) and intelligence dissemination (MO2) formed only 2% of the total prediction. with Time availability (CE4) as a dependent variable the three market orientation dimensions entered the prediction with a variance of 92.3% in the dependent variable, responsiveness (MO3) explained the largest part of the prediction with 90.5% while intelligence dissemination (MO2) and intelligence generation (MO1) formed only 1.8% of the total prediction. Finally, with organizational boundaries (CE5) as a dependent variable the three market orientation dimensions entered the prediction with a variance of 91.9% in the dependent variable, responsiveness (MO3) explained the biggest part of the prediction with 91.1% while intelligence dissemination (MO2) and intelligence generation (MO1) formed only 0.8% of the total prediction.

8. Discussion

This research is an empirical study that tested the relationship between the market orientation with its various dimensions and the various dimensions of the corporate entrepreneurship. It was assumed based on the previous literature findings that the market orientation (intelligence generation, intelligence dissemination and responsiveness) is positively related to corporate entrepreneurship. The following discussion shows the main insights that underline the relationship between market orientation dimensions and the corporate entrepreneurship dimensions.

Intelligence generation (the first dimension of the market orientation) had a strong, significant and positive relationship with the five dimensions of the corporate entrepreneurship. This finding suggests that the greater the organization's ability to study and explore the current and future needs and desires of customers, the more it will encourage the organization to innovate in order to face competition and achieve a sustainable competitive advantage that will enable it to face fierce competition. The desire to innovate will increase the organization's support for innovative activities and increase the rewards and support provided by the management of the organization to the employees who participate in entrepreneurial activities and give them sufficient time, resources and discretion in their work which encourages them to invent goods, services and ideas that can satisfy the customers' needs and desires.

Intelligence dissemination (the second dimension of the market orientation) had a strong, significant and positive relationship with the five dimensions of the corporate entrepreneurship. This finding suggests that organization should be alert to the ways used to communicate, disseminate, and sell market intelligence to relevant parties and individuals. The greater the organization's ability to communicate market intelligence either in a formal or informal way the more the employees and departments can adapt with the changing needs and preferences of customers by innovating new products and services which make them participate to achieve the organizational goals.

Responsiveness as the third dimension of a market orientation had a strong, significant and positive relationship with the five dimensions of the corporate entrepreneurship. This finding suggests that acting to respond to the changes in the customer needs and wants is the most important element in fostering corporate entrepreneurship, taking these actions encourages the management to support the employees' entrepreneurial activities that aim to the innovation of new products and services to respond and satisfy the current and future customers' needs and wants. Also taking these actions into consideration fosters the management to give the employees the needed time and resources, with the attempt to maintain high level of work discretion and build a flexible organizational structure that can lead to the facilitation of innovation and entrepreneurial activities.

The regression analysis has shown that the responsiveness explains the largest part of the prediction of all dependent dimensions of the corporate entrepreneurship. This result shows that without acting to respond to the changing needs and wants of the customers there is no chance to encourage corporate entrepreneurship. The evolution of customers' needs and wants forces organizations to be proactive, to anticipate the future customers' needs and wants and encourage its employees to invent new products, services and ideas that can satisfy these needs. This satisfaction can guarantee a sustainable competitive advantage for the organization, because it can reach customer satisfaction before its competitors. This means that the more the organization is responsive to the changes of the customers' needs and wants the more it can encourage corporate entrepreneurship.

9. Conclusion

This research aimed at analyzing the relationship between market orientation and the corporate entrepreneurship. Questionnaires were administered among telecommunication sector in Egypt. The study concluded that market

orientation has a positive significant relationship with the corporate entrepreneurship which support the findings of previous literature ((Barret Weinstein, 1998; Liu,et al 2002; Luo et al 2013; Muslim A. etal.2016). Furthermore, the research has studied the relationship between the three dimensions of the market orientation and the five dimensions of the corporate entrepreneurship, and it concluded that all these dimensions are positively related and that the five corporate entrepreneurship dimensions are predicted by means of the three market orientation dimensions. Results also revealed that responsiveness explained the largest part of the five dimensions of corporate entrepreneurship.

10. Managerial implications

The research findings suggest that organizations need to increase the responsiveness to the ongoing customers' needs and wants. This can be through innovating new products and services that satisfy those needs. To increase its innovativeness organizations should encourage corporate entrepreneurship within the organization through communicating this belief to the employees. They should support, encourage, facilitate and give vital assets and empowerment to entrepreneurial activities within the organization by building a reward/reinforcement system that encourages employees to innovate. To facilitate innovation activities, management needs to design a flexible organizational structure that can support and facilitate employees' innovative activities by facilitating the circulation of information within the organization.

11. Research limitations and future research

This study was administered in Cairo governorate in Egypt as it was difficult to access all the population due to the limitations in cost and time. The researchers suggest that this research could be extended to other governorates and sectors within the Egyptian economy to be able to generalize the results. Future research should examine other variables that can influence corporate entrepreneurship.

References

- Adonisi, M. and Van Wyk, R. (2012), 'The Influence Of Market Orientation, Flexibility And Job Satisfaction On Corporate Entrepreneurship', *International Business & Economics Research Journal*, Vol. 1, No. 5, pp.477-485.
- Amin, M., Thurasamy,R., Aldakhil, A.M. and Kaswuri A.H. (2016), "The effect of market orientation as a mediating variable in the relationship between entrepreneurial orientation and SMEs performance", *Nankai Business Review International*, Vol. 7 No. 1, pp.39-59.<https://doi.org/10.1108/NBRI-08-2015-0019>
- Antonicic, J.A. and Antonicic, B. (2011a), "Employee satisfaction, intrapreneurship and firm growth: A model", *Industrial Management & Data Systems*, Vol. 111 No. 4, pp. 589-607.
- Atuahene-Gima, K. and Ko, A. (2001), "An empirical investigation of the effect of market orientation and entrepreneurship orientation alignment on product innovation", *Organization Science*, Vol. 12 No. 1, pp. 54-74.
- Atuahene-Gima, K., Slater, S.F. and Olson, E.M. (2005), "The contingent value of responsive and proactive market orientations for new product program performance", *Journal of Product Innovation Management*, Vol. 22 No. 6, pp. 464-482.
- Austin, J., Stevenson, H. and Wei-Skillern, J. (2006), "Social and commercial entrepreneurship: Same, different, or both?", *Entrepreneurship Theory and Practice*, Vol. 30 No. 1, pp. 1-22. <http://dx.doi.org/10.1111/j.1540-6520.2006.00107.x>.
- Baker, W. and Sinkula, J. (2009), "The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses". *Journal of Small Business Management*, Vol. 47 No. 4, pp.443-464.
- Barret, H. and Weinstein, A. (1998). "The effect of market orientation and organizational flexibility on corporate entrepreneurship", *Entrepreneurship Theory and Practice*, Vol. 23 No. 1, pp. 57–71.
- Barrett, H. and Weinstein, A. (1997), "Corporate entrepreneurship, the marketing mix, and business performance", *Conference of the Academy of Marketing Science*, Vol. 20, pp. 144-150.
- Cadogan. J.W., Diamantopolulos, A. and Siguaw, J.A. (2002), "Export market-oriented activities: Their antecedents and performance consequences", *Journal of International Business Studies*, Vol. 33 No. 3, pp. 615-626.
- Central Agency for Public Mobilization and Statistics, CAPMAS 2016, year book, 2016.
- Chandler, G.N., Keller, C. and Lyon, D.W. (2000), "Unraveling the determinants and consequences of an innovation-supportive organizational culture", *Entrepreneurship Theory and Practice*, Vol. 25 No. 1, pp. 59-76.
- Churchill, N.C. (1992), "Research Issues in Entrepreneurship." *The State of the Art of Entrepreneurship*, PWS Kent, Boston, pp. 579-596.

- Covin, J.G. and Slevin, D. (1991), "A conceptual model of entrepreneurship as firm behavior", *Entrepreneurship: Theory and Practice*, Vol. 16 No. 1, pp. 7-24.
- Daft, Richard L. and Richard, S. (1985), "Organizations: A Micro/Macro Approach", Glenview, IL: Scott, Foresman and Company.
- Damanpour, F. and Schneider, M. (2006), "Phases of the adoption of innovation in organizations: effects of environment, organization and top managers", *British Journal of Management*, Vol. 17 No. 3, pp. 215-236. <http://dx.doi.org/10.1111/j.1467-8551.2006.00498.x>
- Demirbag, M., Koh, S.L., Tatoglu, E. and Zaim, S. (2006), "TQM and market orientation's impact on SMEs' performance", *Industrial Management & Data Systems*, Vol. 106 No. 8, pp. 1206-1228.
- Demirci, A.E. (2013), "In pursuit of corporate entrepreneurship: How employees perceive the role of formalization and centralization", *Journal of management research*, Vol. 5 No. 3, pp. 115- 133.
- Dess, G.G., Ireland, R.D., Zahra, S.A., Floyd, S.W., Janney, J.J. and Pane, P.L. (2003), "Emerging Issues in Corporate Entrepreneurship", *Journal of Management*, Vol. 29 No. 3, pp. 351-378.
- Eggers, F., Kraus, S., Hughes, M., Laraway, S. and Snyckerski, S. (2013), "Implications of customer and entrepreneurial orientations for SME growth", *Management Decision*, Vol. 51 No. 3, pp. 524-546.
- Felgueira, T. and Rodrigues, R.G. (2012), "Entrepreneurial Orientation, Market Orientation and Performance of Teachers and Researchers in Public Higher Education Institutions", *Viesoji Politika ir Administravimas; Public Policy and Administration*, Vol. 11 No 4, pp. 703-718.
- Filieri, R. (2015), "From market-driving to market-driven: an analysis of Benetton's strategy change and its implications for long-term performance", *Marketing Intelligence & Planning*, Vol. 33 No. 3, pp. 238-257.
- Gaur, S.S., Vasudevan, H. and Gaur, A.S. (2011), "Market orientation and manufacturing performance of Indian SMEs: moderating role of firm resources and environmental factors", *European Journal of Marketing*, Vol. 45 Nos 7/8, pp. 1172-1193.
- Gopal, R. (2008), "Effect of customer services efficiency and market effectiveness on dealer performance", Department of Marketing, Business Division, Monterrey Institute of Technology and Higher Education, ITESM.
- Guth, W.D. and Ginsberg, A. (1990), "Corporate entrepreneurship", *Strategic Management Journal*, Vol.11, pp. 5-15.
- Hisrich, R.D., Peters, M.P., and Shepherd, D.A. (2008), *Entrepreneurship*, Translated by Chriswan Sungkono and Diana Angelicam, Salemba Empat, Jakarta.
- Hornsby, J.S., Kuratko, D.F. and Zahra, S.A. (2002), "Middle managers' perception of the internal environment for corporate entrepreneurship: assessing a measurement scale", *Journal of Business Venturing*, Vol. 17 No. 3, pp. 253-273. [http://dx.doi.org/10.1016/S0883-9026\(00\)00059-8](http://dx.doi.org/10.1016/S0883-9026(00)00059-8)
- Hornsby, J.S., Kuratko, D.F., Shepherd, D.A. and Bott, J.P. (2009), "Managers' corporate entrepreneurial actions: Examining perception and position", *Journal of Business Venturing*, Vol. 24 No. 3, pp. 236-247.
- Hornsby, J.S., Naffziger, D.W., Kuratko, D.F. and Montagno, R.V. (1993), "An interactive model of the corporate entrepreneurship process", *Entrepreneurship Theory and Practice*, Vol. 17 No. 2 (Spring), pp. 29 - 37.
- Hurley, R.F. and Hult, G.T.M. (1998), "Innovation, market orientation and organizational learning: An integration and empirical examination", *Journal of Marketing*, Vol. 62 No. 3, pp. 42-54.
- Jaworski, A.K. and Kohli, B.J. (1993), Market orientation: antecedents and consequences. *Journal of Marketing*, Vol. 57, pp.53-70.
- Jaworski, A.K. and Kohli, B.J. (1996), "Market orientation: Review, refinement, and roadmap", *Journal of Marketing, Focused Management*, Vol.1, pp. 119-135.
- Jiménez-Zarco, A.I., Pilar Martínez-Ruiz, M. and Izquierdo-Yusta, A. (2011), "The impact of market orientation dimensions on client cooperation in the development of new service innovations", *European Journal of Marketing*, Vol. 45 Nos 1/2, pp. 43-67.
- Kara, A., Spillan J.E. and DeShields, O.W. (2004), "An empirical investigation of the link between market orientation and business performance in non-profit service providers", *Journal of Marketing Theory and Practice*, Vol. 12 No. 2, pp. 59-72.
- Kohli, A.K. and Jaworski, B.J. (1990), "Market orientation: The construct, research propositions and managerial implications", *Journal of Marketing*, Vol. 54 No. 4, pp. 1-18.
- Kohli, A.K., Jaworski, B.J. and Kumar, A. (1993), "MARKOR: a measure of market orientation", *Journal of Marketing Research*, Vol. 30 No. 4, pp. 467-477.
- Kok, R.A.W., Hillebrand, B. and Biemans, W.G. (2003), "Market-oriented product development as an organizational learning capability: Findings from two cases", SOM Research Institute.
- Kotler, P. (2003), *Marketing Management*, Prentice-Hall, Englewood Cliffs, NJ.
- Kreiser, P.M., Marino, L.D. and Weaver, K.M. (2002), "Assessing the Psychometric Properties of the Entrepreneurial Orientation Scale: A Multi-Country Analysis", *Entrepreneurship Theory and Practice*, Vol.

- 26 No. 4, pp. 71-94.
- Kumar, V., Jones, E., Venkatesan, R. and Leone, R.P. (2011), "Is market orientation a source of sustainable competitive advantage or simply the cost of competing?", *Journal of Marketing*, Vol. 75 No. 1, pp. 16-30.
- Kumar, V., Subramanian, R. and Strandholm, K. (2003), "Market orientation and performance: Does organizational strategy matter?", *Journal of Applied Business Research*, Vol. 18 No.1, pp. 37-49.
- Kuratko, D. F. and Hodgetts, R. M. (2007), "Entrepreneurship: Theory, process, Practice. Mason", OH: south-western college publishers.
- Kuratko, D.F., Montagno, R.V. and Hornsby, J.S. (1990), "Developing an entrepreneurial assessment instrument for an effective corporate entrepreneurial environment", *Strategic Management Journal*, Vol. 11 No. 5, pp. 49-58. <http://ssrn.com/abstract=1506387>
- Lam, S.Y., Lee, V.H., Ooi, K.B. and Phusavat, K. (2012), "A structural equation model of TQM, market orientation and service quality: evidence from a developing nation", *Managing Service Quality*, Vol. 22 No. 3, pp. 281-309.
- Li, J.J. (2005), "The formation of management networks of foreign firm in China: The effect of strategic orientation", *Asia Pacific Journal of Management*, Vol. 22 No. 4, pp. 423-443.
- Li, L., Ching-Yick-Tse, E. and Yan-Gu, B. (2006), "The relationship between strategic planning and entrepreneurial business orientation", *The Chinese Economy*, Vol. 39 No. 6, pp. 77-82.
- Liu, S.S., Luo, X. and Shi, Y. (2002), "Integrating Customer Orientation, Corporate Entrepreneurship, and Learning Orientation in Organizations-in-Transition: An Empirical Study", *International Journal of Research in Marketing*, Vol. 19, pp. 367-382.
- Luo, X., Zhou, L. and Liu, S.S., (2005). "Entrepreneurial firms in the context of China's transition economy: an integrative framework and empirical examination". *Journal of Business Research*, Vol. 58 No. 3, pp.277-284.
- Maatooft, A. and Tajeddini, K. (2011), "Effect of Market Orientation and entrepreneurial orientation on Innovation", *Journal of management research*, Vol. 11 No. 1, pp.20-30.
- Matsuno, K., Mentzer, J.T. and Ozsomer, A. (2002), "The effects of entrepreneurial proclivity and on business performance", *Journal of Marketing*, Vol. 66 No. 7, pp. 18-32.
- Miles, M.P. and Arnold, D.R. (1991), "The relationship between marketing orientation and entrepreneurial orientation", *Entrepreneurship Theory and Practice*, Vol. 15, pp. 49-65.
- Miller, D.J., Fern, M.J. and Cardinal, L.B. (2007), "The use of knowledge for technological innovation within diversified firms", *Academy of Management Journal*, Vol. 50 No. 2, pp. 307-326. <http://dx.doi.org/10.5465/AMJ.2007.24634437>.
- Morris, M. and Kuratko, D.F. (2006), *Corporate Entrepreneurship--Entrepreneurial Development within Organizations*, Thomson/South-Western pub, Mason.
- Pinto, J.K. and Mantel, S.J., Jr. (1990), "The causes of project failure", *Engineering Management, IEEE Transactions*, Vol. 37 No. 4, pp. 269-276. <http://dx.doi.org/10.1109/17.62322>
- Ramirez, R.G., Guzman, G.M. and Serna, M.M. (2014), "The Relationship between Market Orientation, Entrepreneurial Orientation, and Innovation: Evidence from Mexican SMEs", *Journal of Business and Economics*, Vol. 5 No. 10, pp. 1930-1940.
- Reza, M.A. and Tajeddini, K. (2011), "Effect of market orientation and entrepreneurial orientation on innovation: Evidence from auto parts manufacturing in Iran", *Journal of Management Research*, Vol. 11 No. 1, pp. 20-30.
- Roach, D.C., Ryman, J. and White, J. (2014), "Culture, conduct and innovation: a deconstruction of market orientation", *Journal of Research in Marketing and Entrepreneurship*, Vol. 16 No. 2, pp. 128-145.
- Rutherford, W.R. and Holt, D.T. (2007), "Corporate Entrepreneurship: An Empirical Look at the Innovativeness Dimension and Its Antecedents", *Journal of Organizational Change Management*, Vol. 20 No. 3, pp. 429-446.
- Schindehutte, M., Morris H. and Kocak A. (2008), "Understanding market-driving behavior: The role of entrepreneurship", *Journal of Small Business Management*, Vol. 46 No. 1, pp. 4-26.
- Sciascia, S., Naldi, L. and Hunter, E., 2006. Market orientation as determinant of entrepreneurship: An empirical investigation on SMEs. *International Entrepreneurship and Management Journal*, Vol 2 No. 1, pp.21-38.
- Seshadri, D.V.R., and Tripathy, A. (2006), "Innovation through intrapreneurship: The road less travelled", *Vikalpa*, Vol. 31 No. 1, pp. 17-29.
- Sharma, P. and Chrisman, J.J. (1999), "Toward a reconciliation of the definitional issues in the field of corporate entrepreneurship", *Entrepreneurship Theory & Practice*, Vol. 23 No. 3, pp. 11-27.
- Webster, Frederick E., Jr. (1988), "Rediscovering the Marketing Concept," *Business Horizons*, Vol. 31, pp. 29-39.
- Weerawardena, J. & O'Cass, A. (2004). Exploring the characteristics of the market -driven firms and antecedents to sustained competitive advantage. *Industrial Marketing Management*, vol. 33, pp. 419-428.

- Wiklund, J. (1999), "The sustainability of the entrepreneurial orientation-performance relationship", *Entrepreneurship Theory and Practice*, Vol. 24 No. 1, pp. 37-47.
- Wolcott, R.C. and Lippitz, M.J. (2007), "The Four Models of Corporate Entrepreneurship", *MIT Sloan Management Review*, Vol. 49 No. 1, pp. 75-82.
- Zahra, S.A. (1991), "Predictors and financial outcomes of corporate entrepreneurship: An exploratory study", *Journal of Business Venturing*, Vol. 6 No. 4, pp. 259-286.
- Zahra, S.A. and Covin, J.G. (1995), "Contextual influences on the corporate entrepreneurship-firm performance relationship: A longitudinal analysis", *Journal of Business Venturing*, Vol. 10 No. 1, pp. 43-58.
- Zimmerman, J. (2010), "Corporate entrepreneurship at GE and Intel", *Journal of Business Case Studies*, Vol. 6 No. 5, pp. 77-81.