

Investigating the Effect of Entrepreneurial Orientation of Jordanian Higher Education Institutions on Customer Orientation

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ABSTRACT

This study aims to determine the level of entrepreneurship orientation, customer orientation and the impact of entrepreneurship orientation on customer orientation of Jordanian public universities. For this study, entrepreneurial orientation dimensions used are: proactiveness, risk-taking and innovativeness. Jordanian public universities represent the sampling frame for this study, while academics working in leadership positions in these universities represent the unit of analysis (presidents, vice-presidents, deans, deputy deans and heads of academic departments). Three public universities were chosen using the judgmental sampling method based on the region (north, central and south) and the size of the university. These universities were Yarmouk University, the University of Jordan and Mutah University. A survey was conducted of all 341 academics working in leadership positions. 213 valid questionnaires were returned, representing a response rate of 63%. Using SPSS 26.0 and SmartPLS 2.0 software, data collected was analyzed by using the Partial Least Square (PLS) method. The results of the study indicate that proactiveness does not affect customer orientation, while risk-taking and innovation positively affect customer orientation

Keywords: Entrepreneurial orientation, Customer orientation, Proactiveness, Risk-taking, Innovation, Jordanian public universities.

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اختبار تأثير التوجه الريادي لمؤسسات التعليم العالي الأردنية على التوجه نحو العملاء

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ملخص

الهدف من هذه الدراسة هو تحديد مستوى التوجه الريادي والتوجه نحو العملاء، وتأثير التوجه الريادي على التوجه نحو العملاء في الجامعات الحكومية الأردنية. ولغرض هذه الدراسة، فقد تم اعتماد ثلاثة أبعاد للتوجه الريادي، وهي: الاستباقية والمخاطرة والابتكار. وتمثل الجامعات الحكومية الأردنية إطار المعاينة لهذه الدراسة، ويمثل الأكاديميون العاملون في المناصب القيادية في هذه الجامعات وحدة التحليل (الرؤساء، ونواب الرئيس، والعمداء، ونواب العمداء، ورؤساء الأقسام الأكاديمية). تم اختيار ثلاث جامعات حكومية باستخدام أسلوب العينة الحتمية بناءً على المنطقة (الشمالية والوسطى والجنوبية) وحجم الجامعة. هذه الجامعات هي: جامعة اليرموك، والجامعة الأردنية، وجامعة مؤتة. تم إجراء مسح لجميع الأكاديميين العاملين في المناصب القيادية البالغ عددهم 341. وتم استرجاع 213 استبانة صالحة للتحليل، وهو ما يمثل نسبة استجابة قدرها 63%. باستخدام برنامج SPSS 26.0 وبرنامج SmartPLS 2.0، تم تحليل البيانات التي تم جمعها باستخدام طريقة المربعات الجزئية (PLS). وتشير نتائج الدراسة إلى أن الاستباقية لا تؤثر على التوجه نحو العملاء، بينما المخاطرة والابتكار يؤثران بشكل إيجابي على التوجه نحو العملاء.

الكلمات الدالة: التوجه الريادي، التوجه نحو العملاء، الاستباقية، المخاطرة، الابتكار، الجامعات الحكومية الأردنية.

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INTRODUCTION

The business environment today is characterized by many changes that have occurred on different environmental factors, where this current environment can be described through increased competition, which includes increased risks and low ability to predict the future and the emergence of agile (multi-tasking) companies, which led to the disappearance of the boundaries between the different industries and the overlap among them, in addition to the emergence of many forms of new organizational structures and creative administrative mentalities. Some researchers described this scene through four main forces: change, complexity, chaos and contradiction (Hitt and Reed, 2000). No company is immune to these enormous pressures from these environmental forces. These rapid transformations in the business environment have positive and negative effects on business organizations according to their response, adaptation and competitiveness.

Therefore, organizations are currently seeking to develop their capabilities to respond quickly and appropriately to such changes in various environmental factors. Thus, an organization can take advantage of rare opportunities in the business environment and achieve a competitive advantage by increasing the value of its customers and improving its strategic position compared to competitors. In other words, organizations under extreme competition conditions and a complex business environment seek to maximize their performance to achieve the goals related to survival and growth. Performance represents the result of the organization's activity and reflects how the organization uses its financial and human resources to achieve its goals (Wheelen and Hunger, 2010).

The concept of entrepreneurial orientation is one of the new concepts that contribute to the survival of organizations and the achievement of superior performance in a turbulent environment (Dimitratos and Plakoyiannaki,

2003; Barringer and Bluedorn, 1999; Hitt et al., 2008). It also enables organizations to discover and exploit market opportunities and respond to challenges appropriately (Wiklund and Shepherd, 2003). A major assumption of entrepreneurial orientation is that highly entrepreneurial organizations are better equipped to adapt to dynamic competitive environments compared to their counterparts from low entrepreneurial organizations (Lumpkin and Dess, 1996). As a result, entrepreneurial organizations that have a change orientation that prefers taking risks and appreciates continuous innovation are gaining more popularity and reach (Deniz, 2016). Therefore, this study seeks to investigate the effect of the entrepreneurial orientation of Jordanian public universities on customer orientation.

Problem Statement

The researcher relied on determining the study problem based on the report issued by the Economic and Social Council related to the study of state universities' status and appropriate solutions (Economic and Social Council, 2018). This report indicated that Jordanian public universities suffer from special problems due to a lack of interest in updating the university's role in developing strategies, plans and programs that attract students to its various colleges, gain their satisfaction, meet the needs of the external community, provide them with services, solve their problems and ensure comprehensive development.

To address these problems, these universities began to pay attention to the concept of entrepreneurship as one of the most important solutions for solving the problems they face, as it came to the point of considering entrepreneurship as a magic formula for achieving prosperity and growth,

not only at the level of individuals and institutions, but also at the level of state economies (Morganthaler and Barber, 2007). Through reviewing the literature on entrepreneurship and even though public universities take some practical measures in response to applying the concept of entrepreneurship in their various activities, such as establishing centers for entrepreneurship within these universities, the researcher sees that one of the most important reasons that can lead to these problems is the absence of applying the concept of entrepreneurship in Jordanian universities. Hence, this study attempts to identify the impact of the entrepreneurial orientation of Jordanian universities on their orientation towards clients. Therefore, the current study tries to answer the following questions:

1. What is the level of entrepreneurial orientation (proactiveness, innovation, risk-taking) in Jordanian public universities?
2. What is the level of customer orientation in Jordanian public universities?
3. What is the impact of proactiveness on customer orientation?
4. What is the impact of risk-taking on customer orientation?
5. What is the impact of innovation on customer orientation?

Study Importance

This study was conducted at a time when several opinion leaders are calling to study and analyze the reality of higher education in Jordan to reach radical solutions to the problems that this sector suffers from, which include a significant decline in financial performance, customer satisfaction (students, workers and the local community), internal production processes and the growth and development of these universities. This is evident in the study carried out by the Social and Economic Council

entitled "The Financial Conditions of Public Universities in Jordan (Reality and Solutions)," which discovered the difficulties experienced by Jordanian public universities. Therefore, this study came to contribute to uncovering some aspects of the problems facing these universities and present some recommendations that could contribute to addressing them.

Theoretical Framework

Entrepreneurial Orientation

Entrepreneurship can be defined from an academic point of view as an analysis of how, who and what are the implications of discovering, assessing and exploiting opportunities for future goods and services (Shane, 2003)? Entrepreneurship was also defined by other researchers as identifying and exploiting previously untapped opportunities (Hitt et al., 2001; Ajagbe and Ismail, 2015; Ogbari, Egberipou, Ajagbe, Oke and Ologbo, 2016).

Entrepreneurs are able to create wealth by identifying opportunities and then developing competitive advantages to exploit them (Alvarez and Barney, 2000). As the environment's dynamic continues to threaten corporate survival and performance, Ireland and Webb (2009) have indicated that responding to these environmental challenges requires adopting a strategy that exploits current competitive advantage and simultaneously explores future competitive advantage. Ketchen, Ireland and Snow (2007) have called opportunities' exploration "opportunity search behavior" and exploitation of opportunities has been called an "advantage search behavior". Table (1) clarifies several definitions provided by researchers to the concept of entrepreneurial orientation.

Table (1)
Entrepreneurial orientation definitions*

Source	Definition
Miller (1983)	Engage in product innovation, participate in risky projects, reach "proactive" innovations and beat competitors.
Covin and Slevin (1989)	Entrepreneurial companies are those in which senior managers possess entrepreneurial management patterns, while non-entrepreneurial companies are those in which senior management pattern is risk-averse, non-innovative and ineffective.
Covin and Slevin (1989)	Entrepreneurial orientation is characterized by technological innovation, frequent and wide product innovation, aggressive competitive orientation and a strong predisposition to take risks.
Lumpkin and Dess (1996)	The processes, practices and decision-making activities that lead to new entry are distinguished by one or more of the following dimensions: "The tendency to act independently, the desire to innovate and take risks and the tendency to be aggressive towards competitors and be proactive concerning market opportunities".
Zahra and Covin (1995)	The total of radical innovations, proactive strategic actions and risk-taking activities that emerge in support of projects with uncertain results.
Voss, Voss and Moorman (2006)	Company-wide organizing to engage in behaviors that reflect risk, innovation, proactive, independence and competitive aggressiveness that lead to change in the organization or the market.
Avlonitis and Salavou (2007)	An organizational phenomenon that reflects the managerial ability with which companies engage in proactive and aggressive initiatives to change the competitive landscape for their benefit.
Cools and van den Broeck (2008)	Senior management strategy regarding innovation, proactive and risk-taking.
Pearce, Fritz and Davis (2010)	A set of distinct but related behaviors that have traits of creativity, proactive, competitive aggressiveness, risk and autonomy.

* Source: Researcher based on previous studies referred to in the table.

Entrepreneurial Orientation Dimensions

Miller (1983) identified three dimensions of entrepreneurial orientation: innovation, risk-taking and proactiveness. Lumpkin and Dess (1996) then added two other variables: aggressive competition and autonomy. Covin and Slevin (1989) endorsed the view that entrepreneurial orientation consists of three dimensions that include innovation, risk-taking and proactiveness. They have indicated that the best way to measure entrepreneurial orientation can be done by combining the extent to which

senior managers tend to assume business risks (risk dimension), their support for change and creativity to obtain a competitive advantage for the organization (innovation dimension) and how they support competition strongly with other organizations (proactiveness dimension). It is clear from the explanation above that there is an overlap between the concepts of proactiveness and aggressive competition.

Wiklund and Shepherd (2005) have indicated that the combination of current attitudes and past

behaviors in the scale of entrepreneurial orientation creates confusion and ambiguity in this area. The original dimensions of the concept of entrepreneurial orientation (innovativeness, risk-taking and proactiveness) have been widely adopted in previous literature (Kreiser, Marino and Weaver, 2002). This can often be attributed to the existence of a valid and widely accepted measure of the concept of entrepreneurial orientation (Deniz, 2016). Based on the foregoing, the researcher will adopt the view that entrepreneurial orientation consists of three dimensions, which are: innovativeness, risk-taking and proactiveness. Against this background, the following paragraphs will be briefly highlighted on the individual dimensions of entrepreneurial orientation.

Innovation

Innovation is the first and most important dimension of entrepreneurial orientation. Covin and Miles (1999) developed a theory that says that innovation is the most important factor in defining entrepreneurship. Lumpkin and Dess (1996) have pointed out that innovation is the factor or common theme underlying all forms of entrepreneurship and they say that without innovation, there is no entrepreneurial direction regardless of the presence of other dimensions. According to Lumpkin and Dess (1996), innovation within the concept of entrepreneurial orientation means that companies are ready to pursue, explore and experiment with new ideas. Parkman, Holloway and Sebastiao (2012) have found that innovation is the most widely researched dimension of entrepreneurship. Morris et al. (2011) confirmed the role of innovation as the most important factor affecting the company's performance. Ireland, Kuratko and Morris (2006) have also demonstrated that innovation is the predominant factor at all levels of entrepreneurial organizations. Rutherford and Holt (2007) also pointed out that innovation is an important force behind the two most important corporate entrepreneurial

functions which are strategic renewal and adventure. Hence, innovation is the critical dimension of entrepreneurship.

Proctor (2014) defined innovation as the practical application of new inventions or innovations in the form of marketable products and services. Tonnessen (2005) defined innovation as starting with proposing and generating new ideas and ending with the use and commercialization of results. This definition indicates that innovation is a process that begins with ideas and ends in the market (outputs). Wang and Ahmed (2007) pointed out that the organization's overall innovation capacity consists of product, market, process, behavioral and strategic innovation. This definition clarifies that innovation in products and the market is concentrated externally, while innovation is concentrated in the field of operations and behavior internally, to create the conditions for innovation to occur and develop the necessary behaviors and capabilities.

Risk-taking

Miller and Friesen (1978) defined organizational risk as "the degree to which managers have the willingness and readiness to make substantial and risky obligations; i.e.; those who have a reasonable chance of costly failure." Wiklund and Shepherd (2005) indicated that risk indicates acting in ways seen as bold even in the face of uncertainty, such as the desire to invest resources where the results are unknown and the risk of failure is high. Lumpkin, Cogliser and Schneider (2009) and Monsen and Boss (2009) have identified risk as a tendency to take bold actions, such as venturing into unknown new markets, allocating a large portion of resources to projects with uncertain results or borrowing heavily. To achieve better company performance and high returns,

companies bear risks such as high levels of accumulated debt, allocating large amounts of resources, introducing entirely new products into new markets and investing in unexplored technologies (Lumpkin and Dess, 1996).

Evidence indicates that all business ventures involve a degree of risk due to the difficulty in predicting future events, so a tendency to risk can range from low risk to high risk. Risk management in the current turbulent and dynamic business environment is an important factor in strategic management and entrepreneurship (Harris and Ogbonna, 2001). Previous literature has indicated a conflict of the tendency for risk for individuals who engage in new projects, as entrepreneurs can be seen as risk-taking and not significantly different from ordinary managers or even the general public and therefore, it may be better to look at entrepreneurs as people who can manage risk, as their capabilities and competencies help them reduce what others may see as a highly risky situation (McGrath and Macmillan, 2000).

Risk-taking behavior is receiving much attention in the literature on entrepreneurship and entrepreneurial organizations are bold and tolerant of risks that lead to new opportunities (Chow, 2006). Previous studies have indicated that organizations that do not take risk in dynamic environments will lose market share and will not be able to compete successfully with other entrepreneurial organizations in the same sector and therefore, they will not be able to maintain a strong position in the industry compared to more aggressive competitors (Freel, 2005; Covin and Slevin, 1991). The tendency to take risk involves many cautions and potential risks and only very carefully managed risks are likely to result in a competitive advantage. On the other hand, actions that are taken without adequate consideration, research and planning can be very costly due to losses resulting from poor analysis, evaluation and mitigation of risks.

Hughes and Morgan (2007) noted that companies with a

high degree of entrepreneurship bear the risks to ensure superior organizational performance. McGrath and Macmillan (2000) pointed out that companies that follow traditional paths have low returns, while risky companies have varying results ranging from medium to high returns and have the potential for long-term profitability. Dess, Pinkham and Yang (2011) as well as Tang, Tang, Marino, Zhang and Li (2008) concluded that entrepreneurial risk positively affects the organization's performance and business growth. Hoonsopon and Ruenrom (2012) noted that risk positively affects the organization's competitive advantage.

Proactiveness

Entrepreneurship has traditionally been associated with taking initiatives, creating opportunities and pursuing those opportunities. In the context of entrepreneurial orientation, the concept of proactiveness represents the behavior of seeking opportunities and a forward-looking perspective that includes providing new products or services before competitors and working in anticipation of future demand to create change and shape the environment (Lumpkin, Collider and Schneider, 2009; Monsen & Boss, 2009).

Miller and Friesen (1978) argued that proactiveness represents a firm's ability to proactively shape the environment rather than simply respond to changes in the market. They also pointed out that proactiveness aims to anticipate future needs and that the proactive company is usually a market leader and not a follower, as it has the insight and vision to understand the opportunities available in the market. Eggers et al. (2013) explained that the proactiveness dimension revolves around the company's tendency to anticipate, understand and act on the needs of

customers in the market, which poses a challenge to competition and the benefit of the "first mover" among competitors. Covin and Lumpkin (2011) noted that the proactiveness dimension ensures that new opportunities and related initiatives are identified and implemented with a level of tolerance for failure.

Wang et al. (2016) indicated to the "first mover" advantage that proactive activity contributes to achieving by helping the organization deliver new products and services before competitors. Proactive organizations take advantage of opportunities, especially in emerging markets and this is the essence of proactiveness. Baker and Sinkula (2009) have found that the proactiveness dimension is closely related to excellence in organizational performance. This has been confirmed by Rhee and Mehra (2013) and Nieto, Santamaria and Fernandez (2013) who indicated that adopting the principle of proactiveness in manufacturing, operations and new product development leads to outstanding performance and competitive advantage in the market.

Chen and Hambrick (1995) noted that the organization must be proactive and responsive to its environment in terms of technology, innovation, competition, customers and other environmental forces that may affect the organization's performance. They have indicated that proactiveness involves taking initiatives to shape the environment for the benefit of the organization, while the response includes the ability to adapt to the challenges of competitors. This means that the organization must be proactive in the search for opportunities and have the motivation to respond aggressively to competitors.

Customer Orientation

Under the highly competitive environment in which companies must survive today, customer focus is a key factor for businesses to succeed (Jaramillo and Grisaffe, 2009; Valenzuela et al., 2010). In this context, large

consumer companies to stimulate demand, invest hundreds of billions of dollars in developing customer-oriented marketing strategies that allow them to co-create value and establish long-term relationships (Hunter and Perreault, 2007), placing the client at the center of the business strategy, going from "acting for the client" to "acting with the client" (Valenzuela et al., 2010).

In recent years, the concept of customer orientation has become one of the key topics of study in the marketing and business administration literature (Homburg et al., 2011). This is due to four main reasons. First, managing the client portfolio as a strategic asset is one of the most efficient ways of managing and allocating the limited resources of the company (Valenzuela et al., 2010). Second, customer orientation would positively influence customer satisfaction and trust, which in turn would have a positive influence on the retention and generation of profitable long-term relationships with customers (Shah et al., 2006). Third, it would increase the profitability of the business through the growth of sales over time (Jaramillo and Grisaffe, 2009). Fourth, customer orientation would generate competitive advantages that can contribute significantly to business success (Slater and Olson, 2001). Therefore, knowing the customer better based on value would cause companies to be aware of market opportunities, improve their processes and allocate resources (Hortinha et al., 2011) and hence, enhance organizational performance.

Customer orientation is represented in achieving the highest degree of customer satisfaction by meeting customers' needs and desires, because customers are the ones who pay the organization to cover costs and achieve profits and the degree of satisfaction affects the organization's ability to attract

new customers and maintain existing ones. Customer orientation includes many fields that constitute value from the customer's point of view, which includes the university's ability to provide educational services easily, reasonable prices, reputation, as well as providing an attractive educational environment, satisfaction with academic, administrative and service performance and the extent of the university's response to student needs.

Development of Hypotheses

Previous literature supports the positive relationship between entrepreneurship and its organizational outcomes; e.g. customer orientation (Lumpkin and Dess, 1996; Zahra, 1991, 1993; Gupta and Gupta, 2015; Rodrigues, Moreno and Tejada, 2015; Zehir et al., 2019; Awwad and Ali, 2012). As entrepreneurship activities increase the diversity of the organization's products, create new opportunities in the market and generate new ways to compete with other organizations in the market, all of these factors contribute to enhancing the success of the organization. The impact of entrepreneurship on the company's growth and profitability has been largely demonstrated in the literature (Tseng and Tseng, 2019; Antoncic, 2006; Zahra and Covin, 1995; Zahra and Garvis, 2000). While many researchers analyzed the direct effects of entrepreneurial activities only on growth and profitability (Zahra, 1991, 1993; Zahra and Covin, 1995), Antoncic and Hisrich (2004) analyzed the indirect effects and found a positive correlation as well. In a statistical analysis that included several studies conducted by Rauch, Wiklund, Lumpkin and Frese (2009) on the relationship between entrepreneurial orientation and organizational performance, it has been indicated that the relationship is somewhat strong, but depends on different perceptions of the concept of entrepreneurial orientation and different cultural contexts. Rauch et al. (2009) indicated that future research that studies entrepreneurial orientation and its relationship to performance in different

cultural contexts will contribute to organizational entrepreneurship research to clarify whether the positive relationship between these two concepts will be repeated or not. Lumpkin and Dess (1996) pointed out that the organization's entrepreneurial orientation depicts its strategic direction and which acquires certain entrepreneurial aspects in its methods, practices and decision-making patterns. It often highlights the organization's tendency to be proactive, innovative and risk-taking (Miller, 1983; Covin and Slevin, 1989; Lumpkin and Dess, 1996; Awwad and Ali, 2012). The term proactiveness refers to the strategic position of anticipating future needs and operating in the market, which creates the advantage of the first mover against competitors (Lumpkin and Dess, 1996). By taking advantage of the market's first mover advantage, preemptive companies may enjoy a better position to obtain high returns in the market. The term innovation also indicates the company's tendency to engage in new activities to generate ideas, experimentation and research and development leading to new products and processes (Lumpkin and Dess, 1996). Innovative companies may win the market competition by providing highly innovative products that set them apart from their competitors. Risk-taking is linked to the desire to allocate large amounts of resources to high-risk, high-yielding business (Miller and Friesen, 1978). Companies that take risk may enjoy better competitive positions if they succeed in converting high-risk initiatives into profitable businesses by making appropriate use of their skills and competencies. Accordingly, the current study predicts a positive relationship between entrepreneurship and customer orientation (Figure 1). Based on the above, the researcher proposes the following hypotheses:

H1: Proactiveness has a significant positive effect (at

$\alpha \leq 0.05$) on the customer orientation of Jordanian public universities.

H2: Risk-taking has a significant positive effect (at $\alpha \leq 0.05$) on the customer orientation of Jordanian public

universities.

H3: Innovation has a significant positive effect (at $\alpha \leq 0.05$) on the customer orientation of Jordanian public universities.

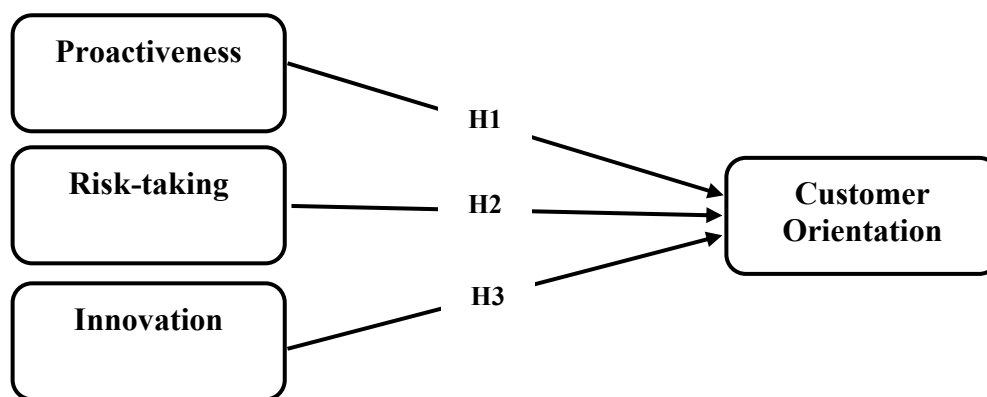


Figure (1)
Study model

Methodology

This study relied on the descriptive analytical approach using a survey method and a questionnaire based on the theoretical framework was used to obtain responses of the sample individuals related to their perceptions of the level of entrepreneurial orientation and customer orientation and then, the interaction between these variables was tested.

Population and Sample

Jordanian public universities represent the sampling frame for this study and academics working in leadership positions in these universities represent the unit of analysis (presidents, vice-presidents, deans, deputy deans and heads of academic departments). Three public universities were chosen using the judgmental sampling method based on the

region (north, central and south) and the size of the university. These universities were Yarmouk University, the University of Jordan and Mutah University. A survey was conducted of all 341 academics working in leadership positions. 213 valid questionnaires were returned, representing a response rate of 63%.

Measurement Tool

A questionnaire has been prepared, with a five-point Likert scale, which was used to measure respondents' perceptions the of the study variables. The final questionnaire consisted of two parts and a total of (27) questions (Appendix 1). Table (2) shows the operational definitions of the study variables.

Table (2)
Operational Definitions

Variable	Operational Definition	Items	Source
Proactiveness	Providing new academic paths, services and ideas, targeting new markets to attract students, creating new opportunities, improving the quality of products to be competitive and anticipating potential environmental changes, requirements and future demand for education.	5-11	Miller (1983); Covin and Slevin (1989); Lumpkin and Dess (1996)
Risk-taking	The tendency to take risks, accept high-risk projects, exploit opportunities that require boldness and courage, encourage employees to take risks, support academic projects with high risk and spread a culture of “taking risk” at the university.	12-17	
Innovation	Experiencing new ideas, creativity in business methods, search for new ways to do business, emphasizing developing new services and spending a lot on activities related to developing new services and investing in developing systems and applications.	18-23	
Customer Orientation	Developing the services provided, consultations and scientific research that benefit the local community, conducting surveys to measure community satisfaction, simplifying work procedures and scheduling work to avoid bottlenecks and crowding between dealers.	24-27	Kaplan and Norton (2001)

Data Analysis and Results

Descriptive statistics, which include frequency tables of frequencies and percentages, were used to describe the characteristics of the study sample in terms of employment, gender, number of years of experience and specialization. Arithmetic means and standard deviations were used to find the levels of study variables in Jordanian public universities. Also, the Structural Equation Model - SEM was used utilizing the Partial Least Square - PLS method through the SmartPLS 2.0 statistical analysis software. It should be noted here that the method of Partial Least Squares (PLS) does not require verification of assumptions related to the normal distribution, as it is suitable for data analysis in the case of small samples (Hair et al., 2018).

Personal Characteristics

The results in Table (3) show that the majority of the respondents (86.9%) were males, while the percentage of females did not exceed (13.1%) of the respondents. This is an indication that most of the leadership positions in public universities are occupied by males. The results also show that the majority of respondents were from the department head category (64.8%), followed by respondents from the vice-dean category (19.7%), college dean category (13.1%), vice-president category (1.4%) and president category (0.9%), respectively. The results also show that the largest percentage of the study sample individuals (32.4%) were from the least experienced group (1-5 years), while the rest of the

sample was distributed among other categories of experience. Finally, the results indicate that the individuals of the sample were distributed among the scientific and

humanitarian colleges almost equally, with a slight preference for the human colleges (55.9%) compared to the scientific colleges (44.1%).

Table (3)
Characteristics of the Sample

	Categories	Frequency	Percentage%
Gender	Male	185	86.9
	Female	28	13.1
Job Title	President	2	0.9
	Vice-president	3	1.4
	Dean	28	13.1
	Vice-dean	42	19.7
	Department Head	138	64.8
Experience (years)	1-5	69	32.4
	6-10	49	23
	11-15	54	25.4
	16 and more	41	19.2
Major	Scientific	94	44.1
	Humanitarian	119	55.9
Total		213	100%

Levels of Study Variables

The results in Table (4) indicate the values of means, standard deviations, level and order of the dimensions of

entrepreneurial orientation and customer orientation in the Jordanian public universities, in descending order.

Table (4)
Means of entrepreneurial orientation and customer orientation

Dimensions	Mean*	Std. Dev.	Level	Order
Proactiveness	3.75	0.724	High	1
Innovation	3.64	0.741	Moderate	2
Risk-taking	3.59	0.797	Moderate	3
Entrepreneurial Orientation	3.66	0.666	Moderate	
Customer Orientation	3.58	0.713	Moderate	

* The scale used ranged from (1-5), where 1 is strongly disagree and 5 is strongly agree. Low level: from 1 to less than 2.33; Intermediate level: from 2.33 to 3.66; High level: from 3.67 to 5.

Table (4) shows the level and order of entrepreneurial orientation dimensions and customer orientation in Jordanian public universities. Proactiveness ranked first with a high level (3.75), followed by innovation with a moderate level (3.64) and finally risk-taking with a moderate level (3.59). The results also indicate that the level of customer orientation in Jordanian public universities was moderate (3.66).

Testing of Hypotheses

Reliability and Validity

Two types of validity tests performed on the measurement instrument were: convergent validity and

discriminant validity (Sekaran & Bougie, 2010). Results in Table (5) indicate that the average variance extracted (AVE) values for all variables were higher than the acceptable minimum level of 0.50 (Hair et al., 2018). The results also indicate that the square root value of the average variance extracted (the values on the diagonal line in Table 5) for each variable were higher than the values of the coefficients of correlation with other variables (horizontally and vertically). This indicates that the measurement instrument has a high level of validity (Hair et al., 2018).

Table (5)
Square root of AVE and correlation coefficients

	Customer Orientation	Innovation	Proactiveness	Risk-taking
Customer Orientation	0.878			
Innovation	0.688	0.873		
Proactiveness	0.617	0.785	0.822	
Risk-taking	0.768	0.752	0.760	0.802

For reliability analysis, results in Table (6) indicate that the lowest loading value for the questions on the variable that it measures was 0.836, which is higher than the minimum acceptable level of 0.70 (Hair et al., 2018). The results also indicate that the Cronbach's alpha values and

the composite reliability (CR) values for all variables were greater than the acceptable minimum level of 0.70 (Hair et al., 2018), which indicates a high level of reliability of the measurement tool.

Table (6)
Reliability test

Variable	Items	Loading	AVE	CR	Cronbach's alpha
Customer Orientation	CO1	0.903	0.771	0.931	0.901
	CO2	0.880			
	CO3	0.870			
	CO4	0.860			
Innovation	IN1	0.843	0.762	0.950	0.937
	IN2	0.855			

	IN3	0.846			
	IN4	0.871			
	IN5	0.893			
	IN6	0.926			
Proactiveness	PR1	0.828	0.676	0.936	0.920
	PR2	0.904			
	PR3	0.754			
	PR4	0.851			
	PR5	0.808			
	PR6	0.780			
	PR7	0.822			
Risk-taking	RT1	0.766	0.643	0.915	0.889
	RT2	0.777			
	RT3	0.822			
	RT4	0.807			
	RT5	0.798			
	RT6	0.841			

Testing the hypotheses was performed by evaluating the results of the structural model. Table (7) and Figures (2; 3; 4; 5) show these results. Structural model testing included

estimating and testing the statistical significance of path parameters of the independent variables on the dependent variable.

Table (7)
Hypotheses testing results

Path	Coefficients	T	Sig.
Entrepreneurial Orientation → Customer Orientation	0.725	22.13	0.000*
Proactiveness → Customer Orientation	-0.063	0.60	0.539
Risk-taking → Customer Orientation	0.601	7.92	0.000*
Innovation → Customer Orientation	0.285	3.18	0.001*

* Significant at $\alpha \leq 0.001$.

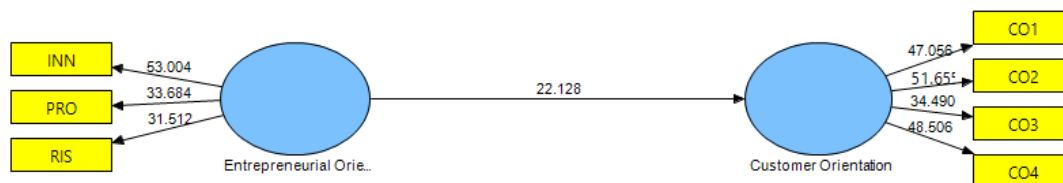


Figure (2)
Testing main hypothesis (T-values)

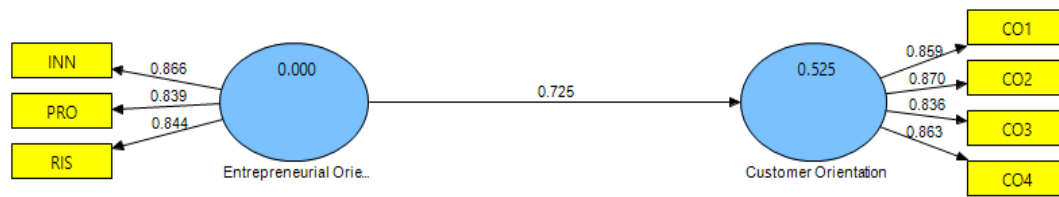


Figure (3)
Testing main hypothesis (coefficient values)

The main hypothesis (H1) relates to the effect of entrepreneurial orientation on customer orientation of Jordanian public universities. This hypothesis has been accepted and therefore, we can say that there is a direct positive effect of entrepreneurial orientation on customer orientation, where the path coefficient = 0.725, the value of

$T = 22.13$ and the significance value = 0.000. This indicates that the higher the level of entrepreneurial orientation in Jordanian public universities, the more the customer orientation of these universities. As a result, hypothesis H1 has been verified.

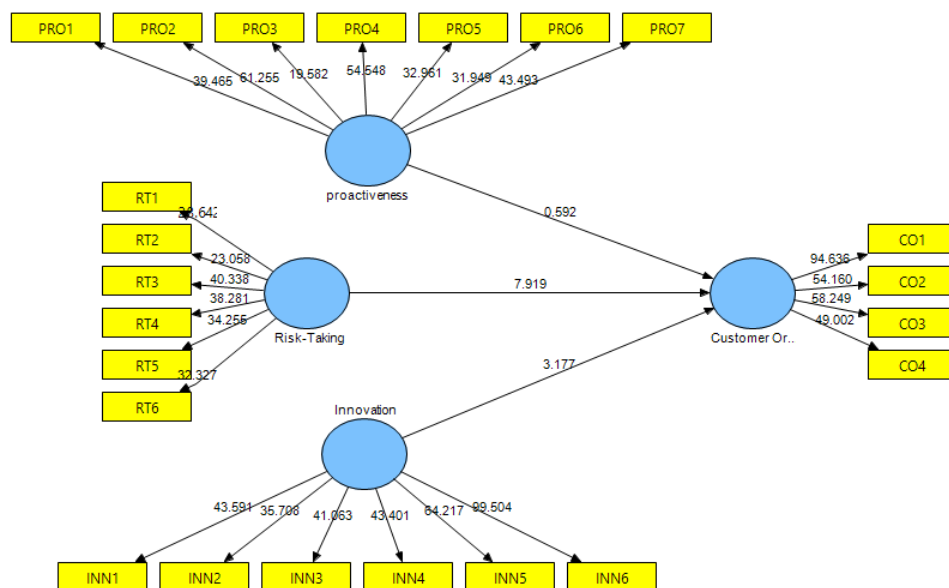


Figure (4)
Testing sub-hypotheses (T-values)

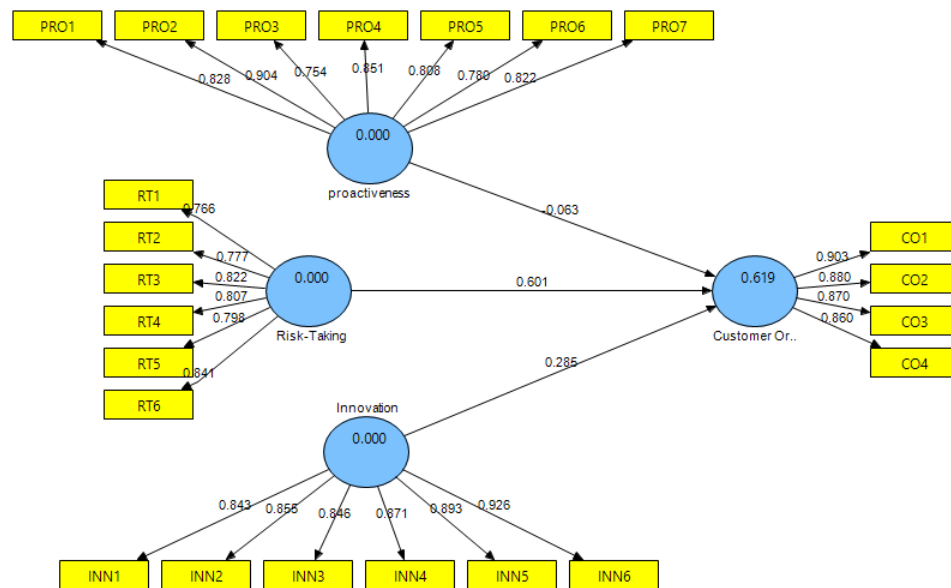


Figure (5)
Testing sub-hypotheses (coefficient values)

The first sub-hypothesis (H1:1) relates to the effect of proactiveness on the customer orientation of Jordanian public universities. This hypothesis has been rejected and therefore, we can say that proactiveness does not affect the customer orientation of universities, as the path coefficient = -0.063, the value of $t = 0.60$ and the significance value = 0.539. This indicates that regardless of the university preceding competitors in exploring and exploiting new opportunities, this does not affect the customer orientation of Jordanian public universities.

The second sub-hypothesis (H1:2) relates to the effect of risk-taking on the customer orientation of Jordanian public universities. This hypothesis has been accepted and therefore, we can say that there is a direct positive effect of risk-taking on customer orientation, where the path coefficient = 0.601, the t -value = 7.92 and the significance value = 0.000. This indicates that the higher the level of risk-taking in Jordanian public universities, the higher the customer orientation of these universities.

The third sub-hypothesis (H1:3) relates to the effect of innovation on the customer orientation of Jordanian public universities. This hypothesis has been accepted and therefore, we can say that there is a direct positive effect of innovation on customer orientation, where the path coefficient = 0.285, the t -value = 3.18 and the significance value = 0.001. This indicates that the higher the level of innovation in Jordanian public universities, the more the customer orientation of these universities.

Discussion and Recommendations

Customer Orientation

The results indicated that the level of customer orientation in Jordanian public universities, in general, was average (3.58). These universities were keen to develop their services provided to their customers to keep abreast of academic developments and they also invested in modern technology to

facilitate customer communication with them and provide the appropriate environment to enable students to develop their various skills.

The failure of these universities to achieve a high level of customer orientation can be explained by the universities' lack of interest in conducting field surveys aiming at measuring how satisfied their customers are with their services. They were not responding to the complaints of their customers to address them quickly and did not provide consulting and scientific research that will benefit the society.

Entrepreneurial Orientation

The results indicated that the level of entrepreneurial orientation in Jordan's public universities, in general, was average (3.66). Proactiveness achieved a high level (3.75), while the other two dimensions (innovation and risk-taking) achieved an average rate of 3.64 and 3.59, respectively.

Regarding proactiveness, universities are concerned with introducing new specializations, taking advantage of the facilities offered by the Ministry of Higher Education and the Accreditation Authority to keep pace with changes in the labor market. Universities also focused on targeting new markets to attract new non-Jordanian students, especially from the Arab Gulf, in addition to developing the quality of services using technology in education and expanding the base of practical application in these disciplines. Regarding innovation, universities were interested in experimenting with the new ideas that were obtained through the search for opportunities, by transforming these ideas into reality, in addition to developing new ways to implement business and developing new services to provide them to customers. Regarding risk-taking, public universities have shown a tendency to take risks compared to other universities and a tendency to take advantage of opportunities that require boldness and courage to maximize the possibility of

benefiting from them. Besides, they have shown a tendency to accept high-risk academic projects and this tendency may be due to the support provided by governmental authorities.

Entrepreneurship Orientation and Customer Orientation

Regarding entrepreneurial orientation, results indicate that entrepreneurial orientation positively affects the customer orientation of Jordanian public universities. In other words, a high level of entrepreneurial orientation that includes innovation, proactiveness and risk-taking leads to better customer orientation. This finding is consistent with the results of previous studies (Covin & Slevin, 1991; Lumpkin & Dess, 1996; Wang, 2008; Wiklund & Sherpherd, 2005; Al-Nsour et al., 2020; Sandri, 2016).

Although the proactiveness dimension has achieved a high level compared to the other dimensions of entrepreneurial orientation (risk-taking and innovation), this dimension has had little impact on customer orientation for universities. This finding was consistent with the results of some previous studies (Filser and Eggers, 2014; Lechner and Gudmundsson, 2014; Musthofa, Sugeng, Nailiand and Ngatno, 2017; Moreno and Casillas, 2008). This result can be explained by the fact that the opportunities in the higher education sector are very limited, mainly in terms of the discovery of opportunities (majors, services and new markets to attract students). These opportunities are available to all Jordanian universities within procedures governed by the regulations and standards of higher education and the Accreditation Authority. As a university discovers a new opportunity, that drives other universities to imitate it very quickly, so that the limited opportunities and availability of them without

exception do not have the desired effect on customer orientation to these universities.

Regarding risk-taking, the results indicate that risk has a significant and positive impact on customer orientation for Jordanian public universities. These results are consistent with the findings of previous studies (Arshad et al., 2014; Ambad and Wahab, 2013; Karacaoglu et al., 2013; Kraus, 2013; Koe, 2013; Zhang and Zhang, 2012; Wang and Yen, 2012; Casillas and Moreno, 2010; Wiklund and Shepherd, 2005; Miller, 1983). These studies indicated that taking risks has positive effects on improving the performance of organizations. This proves that by not taking excessive risks and adopting new ways of doing business, making strategic decisions and taking advantage of new opportunities, there will be a major impact on university performance. However, previous studies advise managers to take only calculated risks (Naldi et al., 2007) in their efforts to improve the performance of their organizations.

Regarding innovation, the results indicate that innovation has a positive and important impact on customer orientation for Jordanian public universities. This finding is consistent with the results of previous studies (Fadda, 2018; Wang and Yen, 2012; Setiawan et al., 2012; Gambatese and Hallowell, 2010; Slaughter, 2010; Wiklund and Shepherd, 2005). Companies that invest in innovation and commit to providing new products or services are likely to experience increased growth (Kraus, 2013; Zhang and Zhang, 2012). This explains how universities can become innovative by focusing on developing new and improved services, production processes, resource management methods, market developments and adjusting organizational strategy to align with the changing business environment that can be translated into improved performance.

Recommendations

Considering the previous results, several

recommendations can be made, which would help public universities enhance their entrepreneurial and customer orientation, as follows:

The results showed the importance of entrepreneurial orientation in improving customer orientation for Jordanian public universities. These results indicate that decision-makers in these universities must adopt and implement entrepreneurial behavior, especially regarding innovation and risk-taking.

A. Regarding Innovation

1. Public universities must continue to track changes in the labor market to develop their existing programs and add more new majors that may be more appropriate to the requirements of the labor market.
2. Public universities must search for more new markets to attract students, whether in the local market, the regional market or even the global market.
3. Public universities should review the issue of demand forecasting to be ready to face competition, changes and environmental conditions and thus to be able to reduce the risk involved in the decision-making process.
4. Public universities must create a regulatory environment characterized by risk-taking among employees, which may encourage them to adopt behaviors that involve a degree of risk.

B. Regarding Risk-taking

1. Public universities must develop the ability to innovate and present new ideas using some strategies, such as storming sessions, multi-disciplinary teams or jobs, employee turnover among others.

2. Public universities must provide financial and non-financial incentives that can motivate and encourage employees to be more innovative and to introduce new ideas.
3. Public universities must take care of the university's teaching staff through special qualification programs for new members to enable them to acquire various skills in the teaching process, particularly in the field of applying information and communication technology systems. This will encourage them to be more innovative in providing new ideas.

Limitations and Future Research

1. This study was limited to Jordanian public universities and therefore, future studies could consider private universities as well as public universities and conduct a comparative analysis.
2. This study considered three dimensions of entrepreneurial orientation which are proactiveness, risk-taking and innovation. Future studies could investigate the same topic considering other dimensions of entrepreneurial orientation; namely, autonomy and competitive aggressiveness.
3. The current study did not consider the effect of mediating variables on the relationship between entrepreneurial orientation and customer orientation. Future studies can investigate the role of mediating variables (Jones et al., 2019) on this relationship.

Appendix (1) ***The Questionnaire***

First: Demographic Variables

1) Job Title

- *University President*
- *Vice-president*
- *Dean*
- *Vice-dean*
- *Head of the Department*

2) Sex

- *Male*
- *Female*

3) Years of Experience at the University

- *1-5 years*
- *6-10 years*
- *11-15 years*
- *Over 15 years*

4) Specialization

- *Scientific College*
- *Humanitarian College*

Second: Study Variables: Please choose the answer that expresses whether you agree or disagree with each of the following statements:

Scale	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
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A) Proactiveness

- 5) Our university initiates new specializations that other universities then respond to and imitate.
- 6) Our university seeks to be ahead of other universities in providing services and new ideas.
- 7) Our university is making great efforts in targeting new markets to attract new students.
- 8) Our university introduces new majors to bring about change in the environment and not just in response to this environment.
- 9) Our university is constantly improving the quality of services to be competitive.
- 10) Our university expects potential environmental changes and future requirements ahead of other universities.
- 11) Our university expects future demand for education ahead of other universities.

B) Risk-taking

- 12) Our university has a higher tendency to take risks compared to others.
- 13) Our university has a high degree of acceptance of high-risk academic projects.
- 14) Our university tends to take advantage of opportunities that require boldness and courage to maximize the possibility of benefiting from them.
- 15) Our decision-makers are ready to take risks.
- 16) Our university supports many academic projects, realizing that some of them may fail.
- 17) The term "risk-taking" is a feature of decision-makers in our university.

C) Innovation

- 18) Our university is constantly experimenting with new ideas in providing its services to its customers.
- 19) Our university is developing new methods of work to be used in providing services to customers.
- 20) Our university is constantly looking for new ways to do different things.
- 21) Our university always focuses on developing new services for its customers.
- 22) Our university spends a lot on activities related to developing new services.
- 23) Our university invests in developing its own systems, applications or tools.

D) Customer Orientation

- 24) The university seeks to conduct a field survey from time to time to measure the extent of customer satisfaction with its services.
- 25) The university responds to the complaints of its customers and works to address them quickly.
- 26) The university uses modern technology to facilitate communication with its customers.
- 27) The university works to provide the appropriate atmosphere to enable students to develop their various skills.

Thank You.

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