



Entrepreneurial orientation and performance: the interaction effect of customer capital

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Abstract

Purpose – The purpose of this study is to advance research on entrepreneurial orientation (EO), resource-based view (RBV), customer (relational) capital, and small and medium enterprises (SMEs) by examining how the interaction effect of customer capital shapes the relationship between EO and firm performance.

Design/methodology/approach – This research is considered as a correlational rather than a casual study with 150 questionnaire returned from manufacturing SMEs. This cross-sectional study tested all hypotheses that are related to the research questions and use statistical software SPSS 17 to analyze data.

Findings – The study found that a high customer capital strengthens the link between two dimensions of EO (innovativeness and risk taking) and weakens the link between another dimension of EO (proactiveness) and firm performance.

Research limitations/implications – First, future studies would benefit from an enhanced development in the measurement of EO dimensions, which relies on richer and more refined conceptualizations. Second, a single informant who was asked to evaluate EO may potentially increase the degree of subjectivity and bias in the responses. Obtaining more than one respondent for the survey from each organization is always highly desirable.

Practical implications – The results of the current study cover the limitation of the previous study by independently examining the moderating effect of customer capital as an intangible resource in the relationship between innovativeness and risk taking on firm performance. The paper expands this line of work by adding the idea that the intangible resources of a firm are more likely to contribute to sustaining superior firm performance when they are used with other factors simultaneously.

Social implications – Environmental factors, such as government financial aid and protection of organizations outside the industry, may affect the relationship between SMEs and the agents. Establishing extra ties between Iranian firms and agents may be expensive for Iranian manufacturing firms, and they may not be able to create these ties without government support.

Originality/value – A research gap exists in understanding how customer capital operates and endows benefits to firms that are beyond their start-up phase and are embarking on international activities. The current study tries to overcome a number of limitations of the previous framework by combining RBV and customer capital. Particularly, “the RBV’s lack of specificity have raised questions as to its status as a legitimate theory, and make it difficult to design and test empirically.”

Keywords Performance, Entrepreneurship, Customer capital, Entrepreneurial orientation, Performance, Small and medium enterprises, Resource-based view, Iran

Paper type Research paper

Introduction

Small and medium enterprises (SMEs) are the engines of global economic growth (Acs and Peterson, 1997). Kusar *et al.* (2004) argued that if SMEs can fulfill customer



demands according to the features and quality of the products, they can successfully enter the universal market. The SMEs sector is the backbone of developed economies throughout the world. In developed countries, such as those in the European Union (EU) with approximately 300 million inhabitants, SMEs represent 99 percent of all businesses, which implies an average of 52 enterprises per 1,000 inhabitants. In the Mediterranean countries of the EU, SMEs represent up to 80 percent of all businesses and employs 66 percent of the entire labor force (European Commission, 2010). SMEs in these countries create more jobs than the larger enterprises.

The SMEs in Iran are categorized as micro enterprises with one to nine employees, small enterprises with ten to 49 employees, or medium enterprises with 50-99 employees (Center, 1999). The SMEs are considered the backbone of the Iranian economy. The importance of the SMEs in Iran can be characterized by the fact that these SMEs are currently estimated to represent 75 percent of all Iranian business enterprises and employ 63 percent of the work force in the private sector. The Iranian public policy is very much focussed on SMEs because of the role that these firms play in promoting flexibility and innovation, in creating jobs, as well as in absorbing employees despite the huge size of the sector compared with large enterprises (Talebi and Tajeddin, 2011). Statistics shows that despite the SMEs making up a large portion of Iranian business enterprises, the share of the value added of these firms are much lower than those of the large enterprises (10 percent from total value added) (Kamalian *et al.*, 2013). The non-personal abilities of owners, such as entrepreneurial abilities as well as the inaccessibility to information, including marketing data, technical information, and information about suppliers, buyers, and competitors, are some of the barriers that prevent fostering of a strong entrepreneurial orientation (EO) among SMEs in Iran (United Nation Industrial Development Organization and UNDP, 2003).

Madsen (2007) observed that the degree of the relationship between firm strategic orientation and firm performance has increased in recent years. According to Coulthard (2007) and Lyon *et al.* (2000), current studies demonstrate a general agreement among scholars that EO does influence firm performance. Furthermore, a few studies have merely investigated the particular relationship between EO and firm growth (Covin *et al.*, 2006; Moreno and Casillas, 2008). Adopting a wise EO is considered insufficient for wealth creation of an organization (Covin and Slevin, 1988; Lumpkin and Dess, 1996). For example, Macmillan (1983) proposed that building contacts and networks is the basic element in determining the success of any firm. A superior judgment of situations under which an EO is reinforced may thus need a contingency perspective that emphasizes the significance of fit among a firm's strategic position and other compounds of interest (Lumpkin and Dess, 1996).

Although previous research has identified the access and use of networks as essential to the success of small professional service firms (Ram and Carter, 2003; Shaw *et al.*, 2008; Silversides, 2001), Peng and Luo (2000) argued that not all ties provide an equal affect. Thus, further research on the different dimensions of EO and firm performance is necessary (Kreiser *et al.*, 2002; Rauch and Frese, 2000). A research gap exists in understanding how customer capital operates and endows benefits to firms that are beyond their start-up phase and are embarking on international activities (Anderson *et al.*, 2010; Ellis, 2010). The current study tries to overcome a number of limitations of the previous framework (Reed *et al.*, 2006) by combining resource-based view (RBV) and customer capital. Particularly, "the RBV's lack of specificity have

raised questions as to its status as a legitimate theory, and make it difficult to design and test empirically” (Reed *et al.*, 2006, p. 868).

In relation to the abovementioned gaps in entrepreneurship studies, the first objective of the current study is to investigate the relationships between the three dimensions of EO (innovativeness, risk taking, and proactiveness) and the financial performance of firms in Iran. The second objective is to investigate the effect of customer capital as a moderator of the relationship between EO and the financial performance of SMEs in Iran.

The paper is structured as follows. Second section describes the basic concepts, reviews the relevant literature, and presents the research hypotheses to be empirically analyzed. Third section provides a description of the methodology utilized in the empirical analysis. Penultimate section presents the basic findings, and the last section summarizes the results along with their implications.

EO

EO has become one of the main concepts in entrepreneurship studies for the last three decades (Covin *et al.*, 2006). In line with prior research, EO is defined as the processes, structures, and behaviors of firms that are characterized by innovativeness, proactiveness, and risk taking (Covin and Slevin, 1988; Miller, 1983).

Innovativeness is defined as the willingness to place strong emphasis on research and development, new products, new services, improved product lines, and global technology in the industry (Covin and Slevin, 1988). Kropp *et al.* (2006) identified that the innovativeness component of an EO is important to the success of new businesses. Without innovation, young organizations would have to rely on traditional ways of doing business, on traditional products/services, and on traditional distribution channels, among others.

Risk taking is defined as the willingness to be bold and aggressive in pursuing opportunities and in preferring high-risk projects with opportunities for very high returns over low-risk projects with lower and more predictable rates of return (Katz and Brockhaus, 1993). If firms have a risk-taking orientation, they may seize lucrative deals. Hence, risk-taking tendencies may be positively related to success (Frese *et al.*, 2002; Lumpkin and Dess, 1996).

Proactiveness is defined as acting opportunistically to shape the environment by influencing trends, creating demand, and becoming a first mover in a competitive market (Lumpkin and Dess, 1996). Zahra and Covin (1995) argued that proactive companies can develop competitive advantage by initiating the first move, planning novel requests and market, and by charging high prices. Thus, a positive relationship between proactiveness and firm performance is evident.

RBV

All resource acquisition techniques have one thing in common: they seek to discover effective ways of utilizing organizational resources (Bontis, 1999). The RBV of the firm (Wernerfelt, 1984; Barney, 1991; Grant, 1991; Peteraf, 1993; Amit and Schoemaker, 1993; Collis, 1994) focusses on internal, firm-specific factors and their effect on performance. Maintained competitive advantage results from a firm’s unique resources and capacities that consist of management skills, organizational process and skills, information, and knowledge (Barney, 1991). For a small business entrepreneur, EO is equivalent to management skills and is therefore a unique intangible resource that leads to competitive advantages (Runyan *et al.*, 2006).

Firm-specific resources can be physical, such as production techniques protected by patents or trade secrets, or intangible, such as brand equity or operating routines (Bontis, 2001). A confusing issue with the RBV is its definition that takes different forms (Nanda, 1996). An embarrassing profusion of riches exists in phrases such as distinctive competence (Selznick, 1957), strategic firm resources (Barney, 1986), invisible assets (Itami, 1987), strategic firm-specific assets (Dierickx and Cool, 1989), and others. Foss and Knudsen (2003) as well as Priem and Butler (2001) argued that RBV is not prescriptive; it does not provide managers with useful advice as to which specific resources they should accumulate to gain an advantage and it lacks a clear definition of competitive advantage.

Peteraf and Barney (2003) suggested an emerging mid-range theory, that is, an intellectual capital-based view of the firm (ICV). ICV can be defined as all non-physical resources that are fully or partly controlled by the organization and those that contribute to the value creation of the organization (Roos *et al.*, 2012). However, with increasing discussions on intellectual capital, most studies follow the framework proposed by Roos *et al.* (1998), Bontis (1998), Johnson (1999), and Bozbura (2004), which adopts human capital, structural capital, and customer capital. From a sociological point of view, customer capital encompasses all external relationships deemed as “social capital” (Nahapiet and Ghoshal, 1998; Subramaniam and Youndt, 2005). Given the three basic dimensions of intellectual capital, the current study focusses on customer capital as a moderating variable between EO and firm performance.

Customer capital

Customer capital is the relationship between an organization and all stakeholders that influence the operations of the organization, including the customers, suppliers, local government, competitors, community, and allies (Castro *et al.*, 2004; Roos *et al.*, 2012; Bueno, 2002; Bueno *et al.*, 2003). Hence, customer capital refers to the establishment, maintenance, and development of relations, including aspects such as the degree of customer, supplier, and strategic partner satisfaction, as well as the merger of value and customer loyalty (Delgado, 2011). Customer capital arises from relationship procedures that a firm maintains with external agents that surround it (Reed *et al.*, 2006; Hsu and Fang, 2009).

Thus, we can see a firm as a connection or network of relationships that is composed of intangible processes and activities beneficial for the production of intangible resources (Bueno, 2002). “Relational resources are not owned and controlled by the organization. At best it can influence relationships. The organization does not own its customer relationships but can try to influence them. No contract in the world can prevent a party from walking away from a deal mentally and thereby preventing the success of its intent, whilst still abiding by the letter of the agreement. Customer capital can simultaneously be used to earn money and to build the brand of suppliers” (Roos *et al.*, 2012, p. 21).

Development in information technologies has empowered enterprises to gather comprehensive information about their customers and to make that information useful for their strategic business missions (Park and Kim, 2003).

SMEs can make a profit by expanding their relationships with suppliers through intense interplay, personal visits, frequent communication, and insights into the workings of foreign markets (Sinha *et al.*, 2011). Forsgren (2002, p. 264) suggested that “a special aspect of learning from other organizations is learning through the existing business relationships. Inter-organizational learning in a business network

implies that deep and long-lasting business relationships facilitate the assimilation of tacit knowledge from the different actors in the network.”

The relationship between firms and allies focusses on the cooperation with several agents of the organizational environment, such as competitors, suppliers, research centers, and so on, when they are operated on a given on-going basis. This relationship is also a source of an important part of organizational value. In addition, the previous study demonstrated that increased cooperation with the general environment is necessary for the firms. For example, McGuire *et al.* (1988) found that a relationship exists between the social responsibility of the organization and its financial performance. Moreover, Gatewood *et al.* (1993) found that corporate reputation is highly related to the tendency of potential job applicants to pursue further contacts with the organization. Social capital provides the organization with values such as collaboration and cooperation, particularly when interactions maintain patterns of commitments and expectations based on rules of rebuttal and equality (Adler and Kwon, 2002). According to Bueno *et al.* (2003), government agencies also play a significant role in the regulation of firms (market regulators).

Firm performance

Little or no published financial data exist for the sample, which consists of private firms. Independent business owners are therefore reluctant to share objective performance information (Smart and Conant, 2011). As different kinds of financial and non-financial dimensions have been found as measures of firm performance, earlier research had the tendency to concentrate on variables for which information is easy to collect (Cooper *et al.*, 1995). Cowling (2004) examined the relationship between growth and profitability and found that a positive relationship exists between these two measures. He proposed the potential for an additive kind of effect wherein profits develop growth and growth develops profits, which lets a number of firms to continuously meet additional returns to scale.

Cowling (2004) considered the growth-profit relationship in terms of system of equations. A few recent studies have explicitly addressed the growth-profitability relationship as their main research question. One example is the work of Cox *et al.* (2002), wherein the authors discovered a positive relationship between sales growth rate and profitability growth.

EO-performance relationship

Wiklund and Shepherd (2005) confirmed a positive relationship between EO and business performance. The concept of EO as an individual level variable has been established by researchers. For example, Aloulou and Fayolle (2005) found that the entrepreneurs or top managers of entrepreneurial firms are eager to show innovative, proactive, and risk-taking characteristics.

Lumpkin and Dess (2001) found that the innovative characteristics of entrepreneurs allow creativity and experimentation in organizations, which leads to the introduction of new products or services, strong research and development, and technological leadership. Moreover, different studies have found that the innovative work behavior of individuals has an important role in improving firm performance (Dorenbosch *et al.*, 2005; Ramamoorthy *et al.*, 2005).

Rauch *et al.* (2009) explored the risk-taking dimension of EO in their review of the papers about the EO construct. From their meta-analysis of 37 empirical studies, they identified a less intense relationship between risk taking and performance. However,

Casillas and Moreno (2010, p. 269) argued, “if the management’s organizational capabilities is taken to be constant and that the risk of any business activity is a general risk affecting all firms, then it would seem logical that those firms capable of taking on higher risk projects will tend to reap a larger reward in the form of greater performance.”

As for the proactiveness characteristic, Brendle (2001) claimed that the proactiveness of business entrepreneurs is an essential element of competitive advantage. Skinner (1969) advocated that a more proactive stance toward manufacturing is likely to vastly accelerate product innovations and shorten production runs.

Moderating role of customer (relational) capital

In their computational model, Lumpkin and Dess (1996) suggested that factors that are internal and external to a firm may moderate the relationship between EO and performance. Moreover, a higher level of customer capital corresponds to enhanced planning, problem solving, and troubleshooting. All these characteristics would most likely increase production and service delivery efficiencies, thereby reducing organizational costs (Youndt and Snell, 2004). Customer capital may also be instrumental in enhancing customer benefits by helping to increase quality, reliability, and flexibility, thus creating value for the customers through production and service delivery process innovations (Kijek, 2012).

Carmeli and Tishler (2004) explored further the argument of the importance of interactions between intangible elements. They found that such interactions enhance organizational performance, that is, the larger effect of any intangible organizational element on organizational performance corresponds to larger effects of other organizational elements. Wang and Chang (2005) as well as Engstrom *et al.*, (2003) further showed the importance of relationships among the elements of intellectual capital.

Several other researchers have also supplied evidence of a positive relationship between the financial and organizational performance of firms and their level of customer capital. Narver and Slater (1990) found that customer capital and business performance are strongly related. Jaworski and Kohli (1993) reported on a study of 222 US business units and suggested that customer capital is an important determinant of performance, regardless of market turbulence, competitive intensity, and technological turbulence. Ruekert (1992) also reported a positive relationship between the degree of customer capital and long-term financial performance. Product improvement, which is a serious activity for the competition and survival of a firm, is an area that benefits from cooperative connections with partners, including customers (Von Hippel, 1994), competitors (Gomes-Casseres, 1997), and suppliers (Mabert *et al.*, 1992).

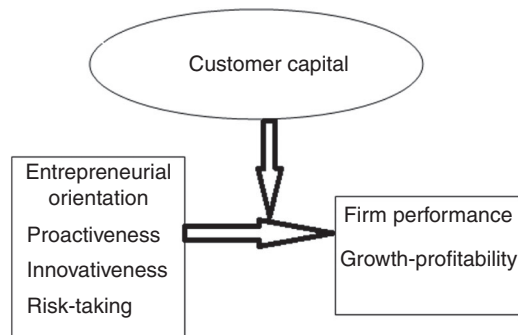
Theoretical framework

The proposed framework for this research is shown in Figure 1. The main hypotheses and sub-hypotheses according to the “received view” are as follows:

H1. EO is positively related to the performance of SMEs.

H1a. Innovativeness is positively related to the growth-profitability relationship of SMEs.

Figure 1.
Conceptual framework



- H1b.* Risk taking is positively related to the growth-profitability relationship of SMEs.
- H1c.* Proactiveness is positively related to the growth-profitability relationship of SMEs.
- H2.* The relationship between EO and the financial performance of firms is stronger for firms with high customer capital.
- H2d.* The relationship between proactiveness and the growth-profitability relationship of firms is stronger for firms with high customer capital.
- H2e.* The relationship between innovativeness and the growth-profitability relationship of firms is stronger for firms with high customer capital.
- H2f.* The relationship between risk taking and the growth-profitability relationship of firms is stronger for firms with high customer capital.

Research method

Sample and data collection

A pilot study was conducted in August 2011. The questionnaires were mailed to 20 firms in Iran. These firms were included in the main sample of the study. The study was conducted to determine if any further modification of the items and/or format is necessary before administering the survey to the remainder of the sample. For example, in the section related to firm performance, respondents indicated that they found the objective measure confusing. The researcher then changed the format of the questionnaire into a subjective measure for ease of answering. The feedback gathered from the pilot test helped the researcher to verify that the items included in the measures were clearly understood by the respondents. From the 20 questionnaires sent, a total of 16 questionnaires were returned, of which four were deemed unusable (18 percent rate of return). The Armstrong and Overton (1977) extrapolation method, which is the accepted method to test for non-response bias, was then employed. No significant differences were found between the two sub-samples of any of these variables.

The samples in this study were restricted to SMEs in the manufacturing industry in Tehran and Hamedan. These criteria were selected because these firms have private owners as entrepreneurs. Proportionate stratified random sampling was employed to

provide the least bias and to offer generalizability. The respondents were given six weeks to answer the questionnaire. The number of manufacturing SMEs in Iran is 11,780 units, of which 2,864 firms are located in Tehran, and 263 firms are located in Hamedan (Center, 2008). A sample of 350 companies was selected from the respective industries based on the simple random selection technique of Krejcie and Mrgan (1970). From the 350 questionnaires sent to the firms, we received a total of 150 responses, representing an overall participation rate of 25 percent. For the data analysis, several statistical tools and methods were utilized from the Statistical Package for the Social Sciences version 17.0.

Measures

Nine items were capitalized on to capture the three dimensions of EO. The items are based on the work of Slevin and Covin (1990). However, they were slightly modified to fit better into the context of Iranian SMEs. For risk taking, three items based on self-efficacy theory were added (Bandura, 1977) to measure the belief of an individual on his or her capability of mobilizing “the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives” (Wood and Bandura, 1989, p. 364).

According to Davidsson (1989), composed dimension is used to measure firm performance, that is, the growth-profitability. Growth focusses on the increase in sales and the increase in sales compared with competitors. In this study, the researcher used the percentage growth in total sales in the last three years (labeled as “sales growth rate”) and the percentage growth in profit in the last three years (labeled as “profit growth rate”) (Khatri, 2000). The responses ranged from 1 = 10-20 percent to 8 = 90-100 percent. Growth scores were calculated, with higher scores representing enhanced growth. Respondents were asked to evaluate the performance of their firm using financial information.

Customer capital was assessed using six items related to relationships with customers, suppliers, competitors, community, local government, and allies (based on Chen *et al.*, 2004; Subramaniam and Youndt, 2005; Reed *et al.*, 2006; among others). In line with the measurement of items, a five-point Likert was adopted for all item scales anchored on a five-point scale ranging from 1 to 5 (1 = “very low relation” to 5 = “very high relation”).

Analysis

A hierarchical moderated regression analysis was used to test the hypotheses. Hierarchical regression analysis allows for a comparison between alternative models with and without interaction terms. In this analysis, an interaction effect only exists if the interaction term contributes significantly to the variance explained in the dependent variable over the main effects of the independent variables (Jaccard and Turrisi, 2003). The simple slope method was used for the interpretation of the interaction effect of customer capital for each regression line to test whether its slope was significantly different from zero (Aiken and West, 1991).

Validity and reliability

A principal component analysis of the EO items resulted in three components, which explained 74 percent of the variance in the items altogether. The items measuring proactiveness, risk-taking behavior, and innovativeness comprised the first, second, and third components, respectively. The internal consistency of the scales was

satisfactory, as the Cronbach α value was 0.900 for proactiveness, 0.915 for risk-taking behavior, and 0.908 for innovativeness.

A principal component analysis of the growth-profitability items resulted in one component, which explained 64 percent of the variance in the items. The internal consistency was satisfactory (Cronbach's $\alpha = 0.712$).

A principal component analysis of the customer capital resulted in one component, which explained 76 percent of the variance in the items. The internal consistency was satisfactory (Cronbach's $\alpha = 0.942$).

Results

Descriptive analysis revealed that innovativeness ranked the highest among the responses ($m = 4.56$, $SD = 0.59$), followed by proactiveness ($m = 4.53$, $SD = 0.66$) and risk-taking behavior ($m = 3.57$, $SD = 0.89$). This result indicates that most of the entrepreneurs in Iran have an innovative characteristic, followed by characteristics of proactiveness and risk taking (see Table I). These results are supported by previous literature, such as the study done by Aloulou and Fayolle (2005), which found that entrepreneurs or top managers of entrepreneurial firms show innovative, proactive, and risk-taking characteristics. The Pearson correlation was performed to investigate the inter-correlation among continuous variables (see Table I). All of the variables are significantly correlated with firms' financial performance. The correlations between proactiveness and firm performance ($r = 0.482$, p -value < 0.01), risk taking and firm performance ($r = 0.480$, p -value < 0.01), as well as between innovativeness and firm performance ($r = 0.460$, p -value < 0.01) were moderated. Based on the analysis, the correlation among variables still falls within an acceptable range (< 0.80). No multicollinearity issue was found in this study.

The hypotheses were tested using hierarchical regression analysis. The results shown in Table II indicate the moderating effect of customer capital on the relationship between EO and firm performance. This analysis consists of three models. In Model 1, proactiveness ($\beta = 0.250$, t -value $= 3.418$, $p < 0.001$), risk-taking behavior ($\beta = 0.351$, t -value $= 5.293$, $p < 0.001$), and innovativeness ($\beta = 0.277$, t -value $= 3.894$, $p < 0.001$) positively significantly affect firm performance. Thus, *H1a*, *H1b*, and *H1c* are supported. Table 2 shows that risk-taking behavior ($\beta = 0.351$) has the strongest relationship with the growth-profitability, followed by innovativeness ($\beta = 0.277$) and proactiveness ($\beta = 0.250$). The results also indicate that all three dimensions explain ($R^2 = 0.417$) 41.7 percent of the variance in the growth-profitability factor. Model 2 expresses the inclusion of the moderating variable, with the model being significant (F -value $= 34.298$, $p < 0.001$) and with the R^2 value denoting 48.6 percent of the variants being explained. Model 3 shows the results of the effects of the interaction between

Table I.
Correlation analysis

	Mean	SD	Proactiveness	Risk taking	Innovativeness	Customer capital	FM
Proactiveness (PC)	4.53	0.66	1.000				
Risk taking (RC)	3.57	0.89	0.299**	1.000			
Innovativeness (IC)	4.56	0.59	0.457**	0.194**	1.000		
Customer capital	4.33	0.78	0.598**	0.321**	0.496**	1.000	
Firm performance (FM)	3.92	0.85	0.482**	0.480**	0.460**	0.597**	1.000

Note: ** $p < 0.01$

	Model 1	Model 2	Model 3	Entrepreneurial orientation and performance
IV				
Proactiveness (PC)	0.250***	0.098	0.970**	
Risk taking (RC)	0.351***	0.303***	−0.419	
Innovativeness (IC)	0.277***	0.182*	−0.507	
Moderator				
Customer capital (AID)		0.351***	−0.141	
Interaction				
PCXAID			−1.706**	
RCXAID			0.966*	
ICXAID			1.562*	
R^2	0.417	0.486	0.535	
Adjusted R^2	0.405	0.472	0.512	
R^2 Change	0.296	0.002	0.038	
F	34.777***	34.298***	23.326***	
F Change	34.777	19.581	4.955	
Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$				

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Table II.

Results of the moderating effect of intra-industry network centrality on the relationship between EO and firm performance

the moderating variable (customer capital) and the independent variable (EO) on the dependent variable (firm performance). The calculation was carried out by including the effects of the interaction between developing ties with agents and EO on firm performance. The model was found to be significant (F -value = 23.326, $p < 0.001$), with the R^2 value denoting that 53.5 percent of the variants are explained and that 51.2 percent is attributed to the interaction terms. Thus, $H2d$, $H2e$, and $H2f$ are supported.

Simple slope of the moderating effect: intra-industry network centrality

The plot of the developing ties with agents and independent variable (proactiveness, risk-taking behavior, and innovativeness) shows a pattern that is consistent with that of the dependent variable (firm performance).

Customer capital moderates the relationship between proactiveness strategy and firm performance (Figure 2). The positive relationship between proactiveness strategy and firm performance is stronger with low customer capital. However, a stronger relationship is shown clearly by the slope for low customer capital compared with the slope for high customer capital. Companies with a low level of customer capital reported significantly higher levels of proactiveness.

Customer capital moderates the relationship between risk-taking behavior and firm performance (Figure 3). The relationship between risk-taking behavior and firm performance is stronger with high customer capital. However, a stronger relationship is shown clearly by the slope for high customer capital compared with the slope for low customer capital. Companies with a high level of customer capital reported significantly higher levels of risk-taking behavior.

Customer capital moderates the relationship between innovativeness and firm performance (Figure 4). The relationship between innovativeness and firm performance is stronger with high customer capital. A stronger relationship is clearly shown by the slope for high customer capital compared with the slope for low customer capital. Companies with a high level of customer capital reported significantly higher levels of innovativeness.

Figure 2.
The interaction graph
between customer capital
and proactiveness on
firm performance

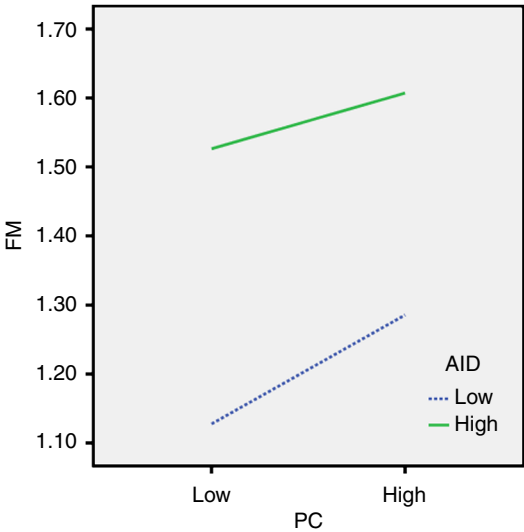
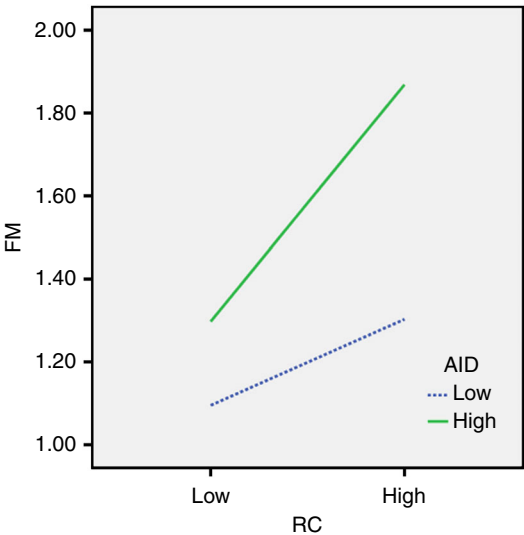


Figure 3.
The interaction graph
between customer capital
and risk taking on
firm performance



Discussion

Descriptive analysis revealed that innovativeness ranked the highest among the responses ($m = 4.56$, $SD = 0.59$), followed by proactiveness ($m = 4.53$, $SD = 0.66$) and risk-taking behavior ($m = 3.57$, $SD = 0.89$). A high rate of competitiveness among Iranian SMEs may be the most important reason for the top ranking of innovativeness among the other dimensions of EO. In terms of risk-taking behavior, the result of regression analysis for this study is in conflict with those of previous studies, such as that by Naldi *et al.* (2007), which found a negative relationship between risk-taking behavior and firm performance. This result also provides support to previous studies

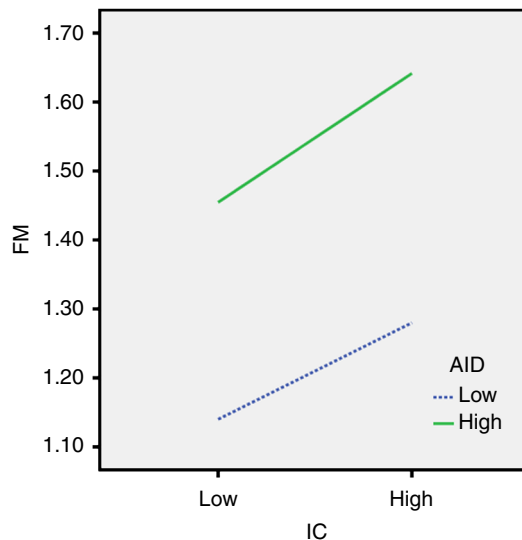


Figure 4.
The interaction graph
between customer capital
and innovativeness on
firm performance

reporting that risk-taking orientation is significantly positively related to higher variability in profitability (Frese *et al.*, 2002; Rauch *et al.*, 2009; Soininen *et al.*, 2011). Risk-taking enables Iranian SMEs to commit remarkable resources to ventures in uncertain environments. Thus, political decision makers who are responsible for economic policy should seriously consider ways to create strong incentives that support SMEs engaged in growth actions with high risk-taking characteristics.

The result on innovativeness supports that of previous works stating that the innovative work behavior of individuals has an important role in improving firm performance (Lumpkin and Dess, 2001; Dorenbosch *et al.*, 2005; Ramamoorthy *et al.*, 2005). The innovativeness dimension of EO can help Iranian entrepreneurs to overcome the problem on traditional technology. A high rate of technological and/or product market innovation, as implied by the innovativeness dimension, can be used by Iranian SMEs to pursue new opportunities.

The result on proactiveness provides support for the studies of Zahra and Covin (1995), Brendle (2001), and Wiklund and Shepherd (2005), who argue that proactive companies can develop competitive advantage by being innovators who target new demands and markets and by charging high prices. Proactiveness helps entrepreneurs to introduce new products and services ahead of the competition and to act in anticipation of future demands.

The results of this study indicate that customer capital positively affects the relationship between innovativeness and the growth-profitability factor. The results are supported by the findings of previous studies (Mehra *et al.*, 2006; Oh *et al.*, 2006). Efforts toward customer capital development lead to higher overall level of innovation and performance, particularly in non-knowledge-intensive businesses such as the lodging sector (Tseng *et al.*, 2008). Focussing on organizational innovation, Mol and Birkinshaw (2009) found that innovation is affected by contingent factors. The variety of information sources accessible to firms also influences the introduction of organizational innovations.

The results of the current study also revealed that strong customer capital positively affects the relationship between risk taking and performance. Emphasizing the statement of Dess and Lumpkin (2005), risk taking requires a large portion of resources and heavy borrowing. This result shows that the type of available customer capital available influences the type of strategic processes, such as the risk taking that firms employ to gain an advantage and helps firms to take a bold action into an unknown market. The result also indicates that resources exist as a bundle (Roos *et al.*, 2012).

Unexpectedly, this study found a significantly negative effect of customer capital on the relationship between proactiveness and the growth-profitability factor. This finding indicates that customer capital consists of a significant investment of human and financial resources that may hurt the performance of Iranian SMEs. Villalonga (2004) argued that in some industries, intangible resources can even lock firms in persistent disadvantages. Customer capital resulting from high bridging ties with agents may not make up for the expense of employing such a network position. In addition, environmental dynamism could be the barrier to resource acquisition. Environmental dynamism is associated with the high degree of unpredictability in customer demand and in the capabilities of competitors as well as with the high rates of change in market trends and industry innovation (Dess and Beard, 1984). In dynamic environments where opportunities are abundant, firms with a greater EO perform better because they tend to pursue new market opportunities before their competitors do.

Theoretical and practical implications

The first major implication of the findings is the contribution to the resource entrepreneur perspective through the identification of a key antecedent (EO) from the RBV theory. The findings confirm the notion of the RBV of the firm (Wernerfelt, 1984; Barney, 1991; Grant, 1991; Peteraf, 1993; Amit and Schoemaker, 1993; Collis, 1994), which focusses on internal, firm-specific factors and their effect on performance. The positive impact of EO on firm performance provides empirical support to the previous study of Barney (1986, 1991), Fahy (2000), Wernerfelt (1984), and others, who consistently postulated the importance of understanding the contribution of a firm's intangible resources toward competitive advantage.

The positive interaction effects of customer capital confirm the idea that EO alone is insufficient to improve firm performance (Day, 1995; Barney, 1991; Chandler and Hanks, 1994; Mahoney and Pandian, 1992). In addition, the results of the current study cover the limitation of the study carried out by Dess and Lumpkin (2005) by independently examining the moderating effect of customer capital as an intangible resource in the relationship between innovativeness and risk taking on firm performance. We expand this line of work by adding the idea that the intangible resources of a firm are more likely to contribute to sustaining superior firm performance when they are used with other factors simultaneously.

The finding that customer capital has complementary effects on the relationship among innovativeness, risk taking, and performance provides initial empirical support for recent contentions that customer capital may have interactive effects (Mehra *et al.*, 2006; Oh *et al.*, 2004). Furthermore, the negative effect of customer capital on proactiveness and firm performance supports the idea that customer capital has a contingent value (Ahuja, 2000), and that not all ties do so equally (Peng and Luo, 2000). We expand this idea by mentioning that environmental factors, such as government

financial aid and protection of organizations outside the industry, may affect the relationship between SMEs and the agents. Establishing extra ties between Iranian firms and agents may be expensive for Iranian manufacturing firms, and they may not be able to create these ties without government support.

This result also shows that the performance implications of customer capital depend on the EO dimensions (innovativeness, proactiveness, and risk taking) of the firm. The result underscores the need to examine the interaction effect of customer capital on other dimensions of EO and firm performance (Kreiser *et al.*, 2002). In addition, the importance of the environment in managing resources suggests that contingency theory logic should be integrated into our understanding of RBV (Miller and Shamsie, 1996; Brush and Artz, 1999). Research has shown that environmental dynamism may affect proactiveness on resource acquisition (Lichtenstein and Brush, 2001). Thus, environmental dynamism is likely to have an effect on the amount of resources needed as well as on the ways those resources are acquired and leveraged (Keats and Hitt, 1988).

The present study offers several practical implications. The findings reveal that Iranian entrepreneurs can enhance the performance of their firms by enhancing their entrepreneurial behavior, particularly innovativeness and risk-taking behavior, and by simultaneously building customer ties. However, Iranian entrepreneurs should recognize that a strong proactiveness strategy may constrain performance when they expand their customer capital without paying attention to other types of networks, such as the relationship with other organizations outside the industry, including universities, media (e.g. newspaper, radio, and television), incubators, law firms, and so on. Given the potential trade-offs between building different customer capital conduits, an important challenge for entrepreneurs concerns balancing the efforts toward strengthening their different ties alongside customer capital.

All business leaders should be appreciative of the power that customer capital can have on business performance. The study of intellectual capital stocks and their exponential growth due to organizational learning flows produces a tremendous amount of energy that can take companies far beyond their current vision (Ward and Leo, 1996). This claim requires people to rethink their attitude on this elusive intangible asset and to start recognizing that measuring and strategically managing intellectual capital may in fact become the most important managerial activity as we enter the third millennium.

Limitations and avenues for future research

Our study does have a number of constraints. First, future studies would benefit from an enhanced development in the measurement of EO dimensions, which relies on richer and more refined conceptualizations. For example, a previous study suggested that innovativeness consists of both administrative and technological innovation (Ibarra, 1993). Second, a single informant who was asked to evaluate EO may potentially increase the degree of subjectivity and bias in the responses. Obtaining more than one respondent for the survey from each organization is always highly desirable.

Third, the moderator between EO and financial performance is by no means exhaustive. Future studies should identify other moderator variables (e.g. examining bridging ties with other organizations outside the industry) between EO and firm performance to further test the robustness of the theoretical prediction. Finally, Iran was chosen as the research context because of the central influence of its government and its highly changing environment. However, developing ties with agents in other countries is also certainly important.

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Further reading

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