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**VALUES, ENTREPRENEURIAL ATTITUDE, SELF-  
EFFICACY, ENTREPRENEURIAL AND MARKET  
ORIENTATION, AND FIRM PERFORMANCE**

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## RESUMEN

Este estudio presenta y valida un modelo teórico que une las características individuales de la fundación o del empresario del comienzo de una empresa. Los valores del empresario, las actitudes empresariales, y la auto-eficacia empresarial -empresa de orientación empresarial (OE) y la orientación de mercado (MO) y en última instancia, con el rendimiento. Los valores internos están positivamente relacionados con la actitud empresarial. La actitud empresarial se relaciona positivamente con la auto-eficacia empresarial y la dimensión de innovación para la igualdad de oportunidades. La Auto-eficacia empresarial está relacionada con la capacidad de innovación, la proactividad y el asumir riesgos dimensionados. El nivel de la proactividad de EO y la actitud empresarial están relacionados con MO. Auto-eficacia empresarial, la innovación, y MO se relacionan con el rendimiento empresarial.

**PALABRAS CLAVE:** empresario, pequeñas y medianas empresas (PYME), los valores, la actitud empresarial, la auto-eficacia empresarial, la orientación empresarial, la orientación al mercado, el rendimiento

## ABSTRACT

This study presents and validates a theoretical model linking individual characteristics of the founding or lead entrepreneur of a start-up venture - the entrepreneur's values, entrepreneurial attitudes, and entrepreneurial self-efficacy - to the firm entrepreneurial orientation (EO) and market orientation (MO) and, ultimately, to performance. Internal values are positively related to entrepreneurial attitude. Entrepreneurial attitude is positively related to entrepreneurial self-efficacy and to the EO innovativeness dimension. Entrepreneurial self-efficacy is related to the innovativeness, proactiveness, and risk-taking dimensions. The proactiveness dimension of EO and entrepreneurial attitude are related to MO. Entrepreneurial self-efficacy, innovativeness, and MO are related to firm performance.

**KEY WORDS:** entrepreneur, small-to-medium enterprise (SME), values, entrepreneurial attitude, entrepreneurial self-efficacy, entrepreneurial orientation, market orientation, performance.

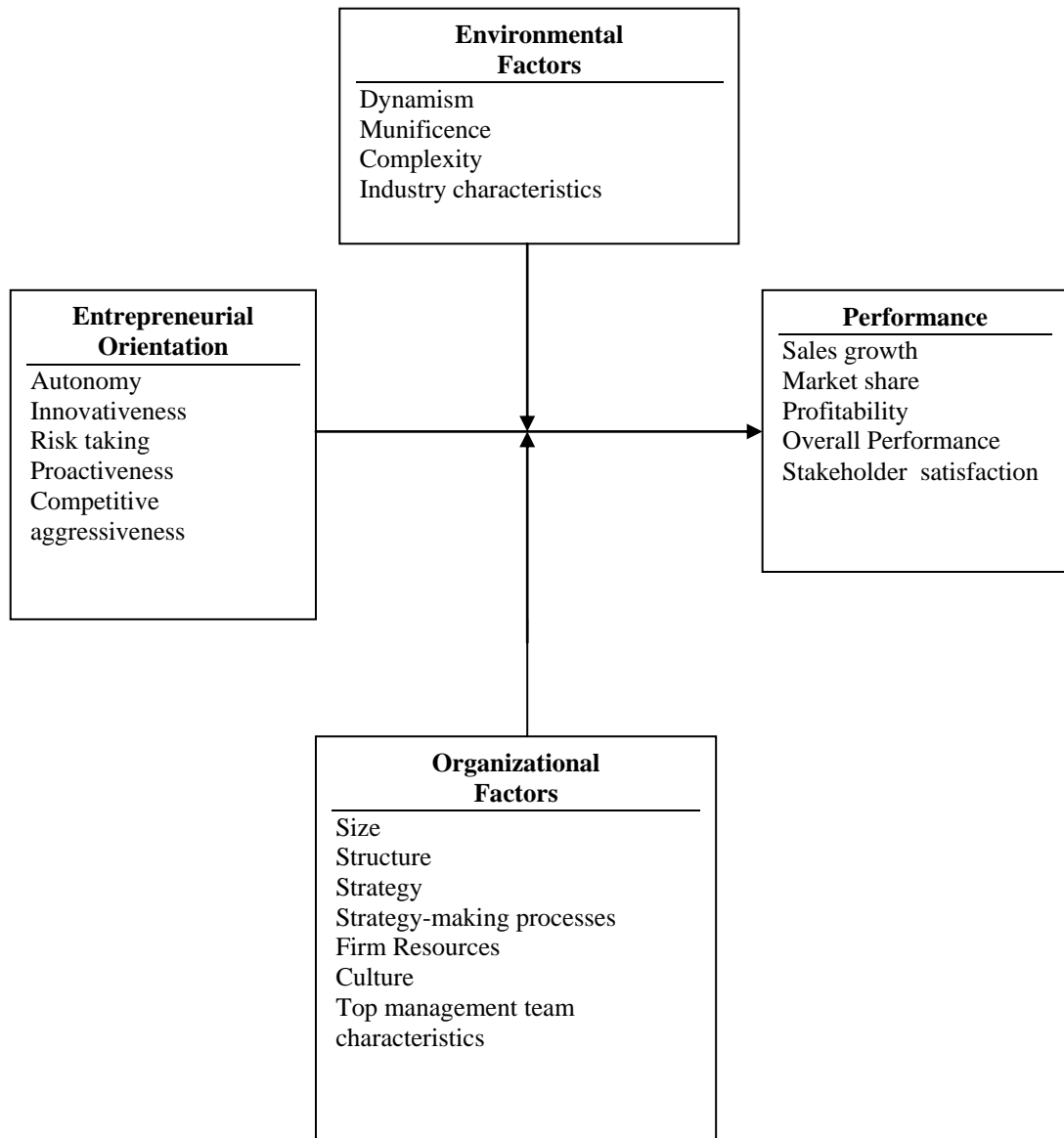
## **1. INTRODUCTION**

Though figures vary across countries and cultures, typically, less than one-third of new businesses survive more than five years (Timmons and Spinelli, 2007). There are numerous reasons for failure including macroeconomic conditions, competition, poor market selection, a flawed business model, an inadequate team, and poor cashflow. Some of these factors are environmental, others are factors associated with the founder or lead entrepreneur and the firm itself. By better understanding these factors, especially the individual and firm specific factors, the firm can enhance its probability of survival and superior performance. Although this may seem intuitive, Davidsson, Delmar, and Wiklund (2002) identify the myriad of challenges associated with studying the factors associated with the survival, growth and performance of entrepreneurial business ventures.

Lumpkin and Dess (1996) developed a model that relates entrepreneurial orientation with firm performance (see Figure 1). In the 13 years since the article was published, it been highly cited – almost 1,400 times, according to Google Scholar, as of July, 2006 – and has been the foundation for much research. EO is a firm-level construct that refers to the processes, practices, and decision-making activities entrepreneurs use in an entrepreneurial firm (Lumpkin and Dess, 1996). Though conceptualized as a multidimensional construct containing up to five different dimensions, three dimensions have appeared most in the literature: proactiveness, innovativeness and risk-taking (Kropp and Zolin, 2005). These dimensions are described in much fuller detail later in the paper.

For now, however, numerous studies have shown that firms with an EO perform better than those without one (e.g., see Kropp, Lindsay and Shoham, 2006).

**Figure 1: Lumpkin and Dess (1996) Model**



Similarly, firms with a market orientation (MO) tend to be more successful than firms without an MO (e.g., Narver and Slater, 1990; Jaworski and Kohli, 1993; Deshpande, Farley and Webster, 2000; Shoham, Rose and Kropp, 2005). There are multiple

definitions of an MO; however, there is a commonality among the definitions. MO involves firms focusing on meeting customer needs and on understanding their competitive environments. Although MO is important to success, there has been limited research into the MO of entrepreneurial business ventures (for two exceptions, see Kara, Spillan and Shields, 2005; and Kropp, Lindsay and Shoham, 2006).

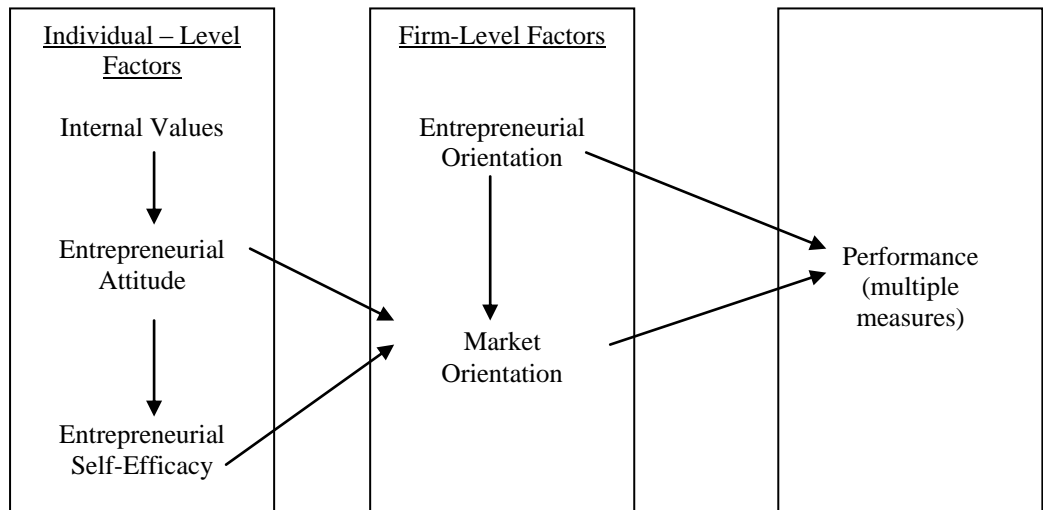
In contrast to the Lumpkin and Dess (1996) model, which examines firms rather than individuals, many entrepreneurship studies examine individual-level constructs, such as an entrepreneur's values, attitudes, and confidence in his or her ability to perform the tasks inherent to conducting an entrepreneurial business. It is rare that both the individual-level and firm-level characteristics are studied together, thereby losing the richness that both have to offer. This study is an attempt to correct this deficit.

Using a sample of more than 200 Australian entrepreneurial business ventures that started operations in 2003-2007, we test a theoretically-based model linking attributes of the founding or lead entrepreneur with specific firm-level factors. The individual-level constructs we examine include personal values, entrepreneurial attitude, and entrepreneurial self-efficacy. The firm-level constructs include the three components of an EO (proactiveness, risk-taking and innovativeness), MO, and firm performance.

This paper focuses on interrelationships among values (using the List of Values (Kahle, 1983), the entrepreneurship opportunity recognition component of attitudes towards entrepreneurship (McCline, Bhat and Baj, 2000), and entrepreneurial self efficacy on the individual level, and entrepreneurial orientation (Lumpkin and Dess, 1996, 2001) and market orientation, on the firm level. The conceptual model is shown in Figure 2 on the next page. In short, individual values drive entrepreneurial attitudes which, in turn, drive entrepreneurial self-efficacy. Both entrepreneurial attitudes and self-efficacy drive

the three components of an EO and an MO. Both EO and MO drive performance. We describe the individual level first, followed by the firm level.

**Figure 2: Conceptual Model**



## THE INDIVIDUAL LEVEL

Values are higher-order social cognitions that can be viewed as antecedents of attitudes and behaviour. Values shape attitudes which, in turn, shape behaviors (Homer and Kahle, 1988). The theory of planned behavior (Ajzen, 1991) also describes relationships between attitudes, perceived norms, and behaviors. We draw from both of these theoretical approaches to examine inter-relationships among values, attitudes, and behaviors (or self-efficacy) of entrepreneurs.

### Values

Rokeach, (1973, p. 5) described values as “enduring beliefs that a particular mode of behavior or end-state of existence is preferable to opposite modes of behavior or end-

state.” Personal values are cognitive representations of universal human and social interaction requirements (Schwartz and Bilsky, 1987). They are shaped by life experiences and cultural context and are adaptive as the guide attitudes and behaviors (Kahle, 1983). Values are fundamental to personal identity and cognitive processing styles and vary amongst individuals (Claxton et al., 1996; 1997).

Values have been shown to play an important role in shaping attitudes and behaviors in several business disciplines. After conducting a review of the marketing literature, Kropp, Lavack, and Silvera (2005) identified 30 studies that used values to explain different kinds of marketing attitudes and behaviors. Areas include food consumption (Homer and Kahle, 1988), travel and tourism (Madrigal and Kahle, 1994), brand choice (Dibley and Baker, 2001), fashion (Rose et al., 1994), gift-giving, shopping (Swinyard, 1998), salesperson performance (Swenson and Herche, 1994) and stereotyping in international business (Soutar, Grainger and Hedges, 1999). Values were also shown to shape patterns in drinking (Kropp, Lavack and Holden, 1999), smoking (Lavack and Kropp, 2004), cause-related marketing (Lavack and Kropp, 2003), and ethics (Rallapalli, Vitell, and Szeinbach, 2000).

As higher order abstract social cognitions, values represent the ability to adapt and shape adaptive attitudes and behaviors. Values also serve an important role shaping motivations and decision making processes. We believe values play an important role in entrepreneurial motivations, attitudes and behaviors. Therefore, we examine values as a precursor to entrepreneurial attitudes, self-efficacy and entrepreneurial orientation.

Three major approaches dominate the values literature in business: Rokeach (1973), Kahle (1983), and Schwartz and Bilsky (1987). The List of Values (LOV) developed by Kahle (1983) is the most prevalent in the business literature and has been used cross-culturally. LOV is a multidimensional structure that has nine basic values that load on

three separate dimensions: internal, external and interpersonal values. Internal values are called internal because they do not require a real or imagined other to validate an individual (Kropp et al. 2005). Self-fulfillment, self-respect, and sense of accomplishment are the three internal values in the LOV scheme. Antithetically, external values - security, sense of belonging, warm relationships with others, and being-well respected - are a part of the external dimension because they generally require validation by others (Kahle 1983). Fun and enjoyment in life and excitement, combine some aspects of internal and external values, and are classified as interpersonal values as they relate to interactions between people (Kahle 1983). We will examine the relationship among values and the other constructs in subsequent sections.

### **Entrepreneurial Attitude (EO)**

Robinson et al. (1991) developed a multidimensional entrepreneurial attitude orientation (EAO) scale with four dimensions: achievement in business, innovation in business; perceived personal control of business outcomes; and perceived self-esteem in business. McCline et al. (2000) acknowledged the importance of Robinsons et al.'s (1991) pioneering effort in developing the new EAO scale, however, they felt that two important components, risk taking and opportunity recognition, were missing from the scale and undertook a refinement effort. Although not successful in capturing the risk-taking component, McCline et al. (2000) developed a new measure for the opportunity recognition component called "entrepreneurial attitude opportunity recognition" (EOR).

Attitudes are most often conceptualized as a tripartite construct with a cognitive component, an affective component and a behavioral intent component (Fishbein, 1963; Fishbein and Ajzen, 1974; Ajzen, 1991). The EOR uses this approach. The cognitive component contains thoughts and beliefs about the entrepreneurial opportunity. The

affective or emotional component contains feelings about the opportunity. The behavioral intent or conative component contains the predispositions to behave in a certain way toward the opportunity (McCline et al., 2000). Examples of EOR items, using a Likert-like approach, include: “At my job, I have helped identify new ways of performing the things we must do”, “I like talking to people to find out how I can provide better services”, and “I enjoy finding new ways my organization can better meet the needs of the customers” (McCline et al., 2000, p. 93). Since opportunity recognition is central to entrepreneurship (Schwartz, Teach and Birch, 2005), we focus on the EOR component in this study. We examine the interrelationships between values, EOR, entrepreneurial self-efficacy, and EO in subsequent sections of this paper.

### **Entrepreneurial Self Efficacy (ESE)**

Based on social learning theory, self-efficacy measures an individual’s belief that he or she can exercise control in a given situation (Wood and Bandura, 1989). This differs from locus of control (Rotter, 1975) which is more of a world view. For example, people with high locus of control feel, to varying degrees, that they can control their own destiny. Conversely, people with low locus of control feel that they are not able to exert significant control. Self-efficacy is different in that it is situation or task based. Self-efficacy measures the degree of confidence an individual has to complete a specific task (Bandura, 1993). People with high self-efficacy have a high level of confidence in their ability to complete a specific task. This is important because self-efficacy can be predictive of behavior, i.e., the willingness to attempt a task (Locke et al, 1984; Wood and Bandura, 1989; Bandura, 1991).

Entrepreneurial Self Efficacy (ESE) is grounded in the milieu of entrepreneurship and measures the confidence in the willingness to attempt entrepreneurial tasks. Chandler

and Jansen, 1997, p.98). define ESE as the “founder’s self-perceived ability to recognize and envision taking advantage of opportunity.” Previous research has found ESE to play a role in perceptions of entrepreneurship (Peterman and Kennedy, 2003), differences between entrepreneurs and managers (Chen, Greene and Crick, 1998), the study of entrepreneurship and start-up (Boyd and Vozikis, 1994), and new venture performance (Chandler and Jansen, 1997).

In this paper, we examine ESE as an individual-level characteristic. We believe that ESE plays a role in motivating individuals to attempt entrepreneurial actions. ESE drives entrepreneurial actions or behaviours.

### **Inter-relations among Individual Level Constructs**

Homer and Kahle (1988) conducted a pioneering study in values research in the marketing area. Using a structural model, they demonstrate a values-attitudes-behavior linkage. Values shape attitudes which shape behavior. They found that internal values played a significant role in attitudes towards natural foods which, in turn, resulted in the consumption of more natural food. As another marketing example, people who place a higher weight on the value of *security* could have stronger positive attitude towards purchasing products with high brand recognition/equity, resulting in the purchase of a brand name products.

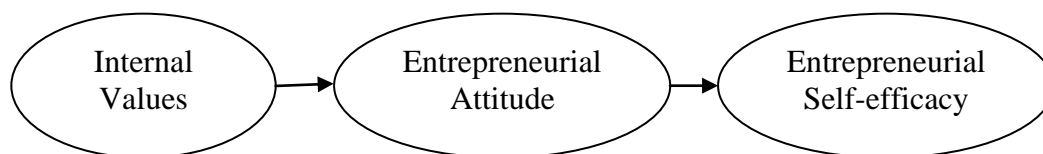
Previous research in entrepreneurship identifies that entrepreneurs are internally motivated. These motivations relate to the self concept and include self-respect or self-fulfillment. Therefore internal values play an important role in shaping attitudes. Since EOR is an attitudinal measure, internal values will shape EOR.

In the theory of planned behavior, Ajzen (1991) identifies relationships between attitude toward the behavior, subjective norm, perceived behavioral control, behavioral intention and actual

behavior. Perceived behavioral control is one of the drivers of behavior intention and behavior. Ajzen's conception of perceived behavioral control is compatible with Bandura's (1982) concept of self-efficacy which "is concerned with judgments of how well one can execute courses of action required to deal with perspective situations" (Ajzen, 1991, p.184, citing Bandura, 1982, p. 122).

Krueger and Carsrud (1993) also identified that entrepreneurial intentions predict entrepreneurial behaviors. Kolvereind and Isakson (2006) found that perceived behavioral control can be viewed as an antecedent of intentions and behaviors. EOR is an attitudinal measure. Based on the theory of planned behavior, there is a direct positive relationship between EOR and ESE. These relationships are depicted in Figure 3.

**Figure 3: Values, Attitudes, Self-Efficacy Linkage**



### **THE FIRM LEVEL**

#### **Entrepreneurial Orientation (EO)**

Lumpkin and Dess (1996) conceptualize EO as the processes, practices, and decision-making activities entrepreneurs use in an entrepreneurial firm. Lumpkin and Dess (1996) identify five EO dimensions: proactiveness, risk taking, innovativeness, autonomy and competitive aggressiveness, however, Kropp, Lindsay and Shoham (2008) identify that the first three dimensions - proactiveness, risk taking and innovativeness - are the most commonly used dimensions. *Proactiveness* is a forward-looking opportunity-based perspective of introducing new products/services in anticipation of future demand (Knight, 1997; Lumpkin and Dess, 2001).

In an early stage venture, the values, attitudes and ESE of the founding or lead entrepreneur are especially important to the firm. In the extreme case, the founding or lead entrepreneur may be the firm. This is especially true in a startup or early stage venture. In more established firms, the founding or lead entrepreneur will exert a strong influence on the firm to varying degrees.

*Risk-taking* involves a willingness to take decisive actions such as introducing new products or entering new markets, committing resources in uncertain conditions, and borrowing (Lumpkin and Dess, 1996). Although risk-taking can be at the individual-level (Sitkin and Pablo, 1992; Brockhaus, 1980), it is a firm-level trait in the context of EO (Baird and Thomas, 1985). Forlani and Mullins (2000) describe entrepreneurial risk as involving uncertainty and the potential of financial loss.

*Innovativeness* is an important dimension of entrepreneurship (Miller, 1983; Shane and Venkataraman, 2000). Kropp, Lindsay, and Shoham (2006) identify the innovativeness component of EO is positively correlated to the performance of a new business. Innovativeness is important to the development of new products, markets, processes and techniques (Miller, 1983; Schumpeter, 1934). Innovative firms outperform other types of firms (McKee, Varadarajan and Pride, 1989).

### **Market Orientation (MO)**

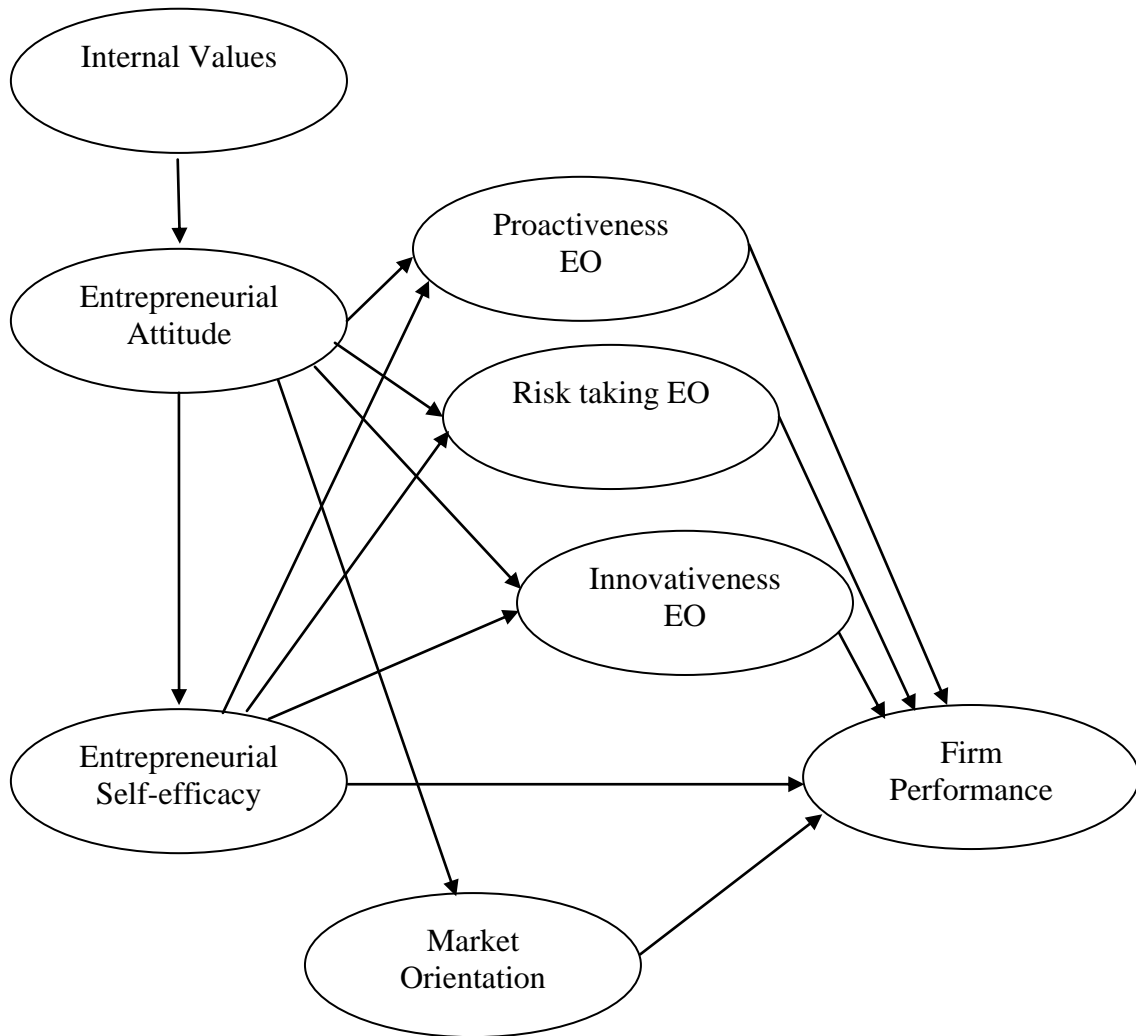
MO measures the marketing focus of the firm. A substantial body of research in MO has established a link between MO and firm performance (e.g., Deshpande, Farley, and Webster, 1993, 2000; Jaworski and Kohli, 1993; Kohli and Jaworski, 1990; Narver and Slater, 1990; Pelham and Wilson, 1996). Market-oriented firms recognize and respond to changes in consumer needs. They also respond to competitive moves made by other

firms in their industry MO is important to firms because it captures their ability to anticipate, address, and capitalize on market changes in customer needs that lead to enhanced performance. Market-oriented firms capitalize on these changes leading them to superior performance compared with less market-oriented firms. An MO-Performance relationship has been established for domestic and international firms (e.g., Rose and Shoham, 2002); a link also substantiated in a recent meta-analysis (Shoham, Rose, and Kropp, 2005).

Three explanations underlie the link between MO and performance. First, according to Lusch and Lucznik's (1987) evolutionary perspective, higher MO enhances performance. Second, industrial organization economy (e.g., Aldrich, 1979) also explains the MO-performance link (Knight and Dalgic, 2000). A tighter fit between firms' strategies and their environments enhances performance. Finally, according to the resource-based-view of the firm, differing firm resources lead to varying strategies and, subsequently, to performance differences (Barney, 1991; Porter, 1991; Wernerfelt, 1984). Superior resources drive performance when they are durable, non-transparent, non-transferable, and/or non-replicable (Grant, 1991).

The linkages between the individual-level constructs and the firm-level constructs are shown in figure 4.

**Figure 4: Linkages between Individual and Firm Level Constructs**



## **RESEARCH METHOD**

A survey was developed, pretested, refined, and then conducted with a random sample of 1,000 founders of small-to-medium enterprise (SME) Australian businesses started during the period between 2003 and 2007. Public sector, agricultural, micro businesses, and non-employed firms were excluded. One hundred and thirty surveys were returned as undeliverable. There were 204 complete questionnaires returned. This resulted in an effective response rate of 24%. Of the 209 surveys received, 204 were useable. Demographic and sectoral profiles of the respondents are shown in Table 1.

**Table 1: Sample Characteristics**

<b>Variable</b>	<b>Details</b>
Gender	male - 86%, female - 14%
Age Distribution	26-35 - 6% 36-45 - 29% 46-55 - 40% 56-65 - 22% 65+ - 3%
Education	primary school - 1% high school - 27% technical or trade school - 14% certificate after high school - 11% a undergraduate degree - 10 % postgraduate degree - 20% other qualification - 17%
Prior Businesses Started (before current business)	none - 0% one business - 63% two businesses - 19% three businesses - 9% four or more businesses - 9%
Business size	one to five employees - 53% six to eight employees - 47%

## **Measures**

*Values:* Personal values of the entrepreneur were measured using the nine item List of Values or “LOV” (Kahle, 1983). LOV is a parsimonious and demonstrates excellent psychometric properties (Kropp et al., 2005). The instrument has nine items, using a nine-point Likert-like scale, anchored by “1 = Important to Me” and “9 = Extremely Important to Me”. Examples of LOV items include “Sense of Belonging (to be accepted needed by friends, family, and community)”, “Excitement (to experience stimulation and thrills)”, and “Self-Respect (to be proud of myself and confident of who I am)”.

*Entrepreneurial Attitude (EA):* EA was measured using the McCline et al. (2000) scale on attitude toward opportunity recognition (EOR). McCline et al. (2000) identified the EOR

scale to be more parsimonious in predicting entrepreneurial attitudes and differentiating entrepreneurs from non-entrepreneurs than Robinson et al.'s (1991) scale although they acknowledge that the EOR scale could be used advantageously in conjunction with Robinson et al.'s (1991) EAO achievement and perceived personal control subscales. For parsimony, this research uses only the EOR scale. EOR measures use a 10-point Likert-like scale (1 = Strongly Disagree and 10 = Strongly Agree). Examples of scale questions include: "I like talking to people to find out how I can provide better services." and "I believe I can identify what a customer needs to make them satisfied".

*Entrepreneurial Self-Efficacy (ESE):* We use established ESE measures as developed by Chen et al. (1998) and further enhanced by Zhao et al. (2005). Using a five-point Likert-like scale, these items gauge an individual's belief (from "no confidence" to "complete confidence") that he or she could carry out the activities necessary to be a successful entrepreneur. Question examples include "How confident are you in your present readiness for successfully ... identifying new business opportunities? ... commercialising an idea or new development?"

*Entrepreneurial Orientation (EO):* In measuring EO, we use the measures developed by Lumpkin & Dess (1996, 2001) to measure the three most widely used dimensions as established by Covin and Slevin (1989) - proactiveness, innovativeness, and risk-taking. These items are anchored at each end and use a seven-point Likert-type scale.

*Market Orientation (MO):* Three scales dominate the marketing literature, Kohli and Jaworski, 1990; Narver and Slater, 1990; and Deshpande, Farley, and Webster, 1993). Each measures MO and "the three scales appear to be interchangeable" (Deshpande and Farley, 1998, p. 222). Consequently, for reasons of parsimony, the nine-item Deshpande, Farley, and Webster (1993) scale was selected. The scale is shown in Appendix 1.

*Firm Performance.* To measure firm performance, we used a scale developed by Zou, Taylor, and Osland (1998). This scale includes six 5-point items (1 = “strongly disagree” to 5 = “strongly agree”) to measure statements such as “the firm has been very profitable” and “the firm has achieved rapid growth”. We then combined the items into a single scale.

## RESULTS

Table 2 provides the descriptive statistics for the scales. The analyses used to test the measurement properties of our scales and to evaluate the hypotheses are described below. Given the multivariate nature of the model and the need to assess both the measurement properties of the scales and the substantive relationships between them simultaneously, structural equation modelling (using AMOS) was used. Figure 5, on the next page, presents the full structural model.

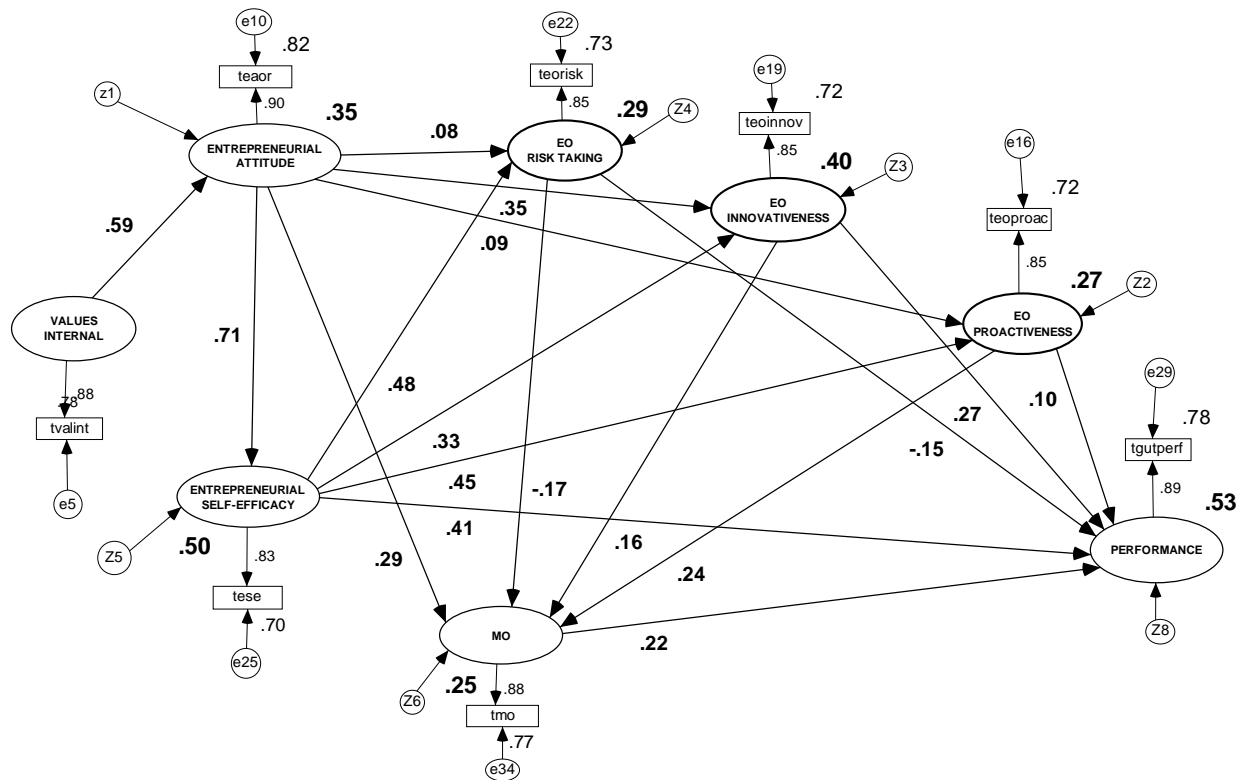
**Table 2: Descriptive Statistics for Scales**

<b>Variable</b>	<b>Cronbach Alpha</b>	<b>Mean</b>	<b>Standard Deviation</b>
Internal Values	0.780	7.62	1.12
Entrepreneurial Attitude	0.820	7.74	1.27
Entrepreneurial Self-Efficacy	0.701	4.05	0.61
EO – Risk Taking	0.731	4.56	1.10
EO – Innovativeness	0.720	3.75	0.92
EO – Proactiveness	0.726	5.19	1.12
MO	0.770	3.89	0.55
Firm Performance	0.784	3.90	0.66

The  $\chi^2$  statistic for the structural model was not significant indicating that there is no significant difference between the sample variance/covariance matrix and the model implied variance/covariance matrix. Hence, the data fits the model well and the model is

confirmed. Further fit indices also supported the fit between the sample and the model. The Goodness of Fit Indices and Adjusted Goodness of Fit Indices were greater than 0.950, the Root Mean Square Error of Approximation was less than 0.05, the Tucker Lewis Index was approximately 1.0, the Comparative Fit Index was approximately 1.0, and the Standardized Root Mean Square was less than 0.05. These indices, which are within the recommended cutoff limits, provide additional support to the  $\chi^2$  statistic that the data fits the structural model.

**Figure 5: Full Structural Model**



Given that the data set fits the model, the following observations can be made about the results with the regression weight details appearing in Table 3. The  $R^2$  for the following dependent variables was as follows: Entrepreneurial Attitude = 0.35; Entrepreneurial Self-Efficacy = 0.50; EO Risk Taking = 0.29; EO Innovativeness = 0.40;

EO Proactiveness = 0.27, MO= 0.25, and Firm Performance = 0.53. To amplify, an R<sup>2</sup> of .35 for Entrepreneurial Attitude means that the construct explained 35% of the variance.

**Table 3: Regression Weights**

			Estimate	P
ENTREPRENEURIAL_ATTITUDE	<---	VALUES_INTERNAL	.591	***
ENTREPRENEURIAL_SELF-EFFICACY	<---	ENTREPRENEURIAL_ATTITUDE	.702	***
EO_RISK TAKING	<---	ENTREPRENEURIAL_ATTITUDE	.080	.582
EO_INNOVATIVENESS	<---	ENTREPRENEURIAL_ATTITUDE	.352	.010
EO_RISK TAKING	<---	ENTREPRENEURIAL_SELF-EFFICACY	.484	.002
EO_PROACTIVENESS	<---	ENTREPRENEURIAL_SELF-EFFICACY	.455	.003
EO_PROACTIVENESS	<---	ENTREPRENEURIAL_ATTITUDE	.090	.539
EO_INNOVATIVENESS	<---	ENTREPRENEURIAL_SELF-EFFICACY	.336	.019
MO	<---	EO_RISK TAKING	-.172	.089
MO	<---	EO_PROACTIVENESS	.244	.015
MO	<---	EO_INNOVATIVENESS	.158	.188
MO	<---	ENTREPRENEURIAL_ATTITUDE	.291	.019
PERFORMANCE	<---	EO_PROACTIVENESS	.099	.331
PERFORMANCE	<---	ENTREPRENEURIAL_SELF-EFFICACY	.416	.005
PERFORMANCE	<---	EO_INNOVATIVENESS	.276	.013
PERFORMANCE	<---	EO_RISK TAKING	-.154	.139
PERFORMANCE	<---	MO	.219	.013

All construct inter-relationships are significant except for Entrepreneurial Attitude – EO Risk ( $\beta = 0.08$ ), Entrepreneurial Attitude – EO Proactiveness ( $\beta = 0.09$ ), EO

Innovativeness – MO ( $\beta = 0.16$ ), EO Risk Taking - MO ( $\beta = - 0.17$ ), EO Proactiveness – Performance ( $\beta = 0.10$ ), and EO Risk Taking – Performance ( $\beta = - 0.15$ ).

## **SUMMARY**

In this research, we examine the inter-relationships among key constructs associated with the individual and the firm. Our motivation for this research is that individual entrepreneurs have a significant impact on the firms they found – particularly in the formative stages of developing their businesses. Thus, looking at the individual entrepreneur or the firm in isolation provides only a partial insight. We find that by examining individual entrepreneur constructs (values, entrepreneurial attitude, and entrepreneurial self-efficacy) as antecedents to key firm level constructs (entrepreneurial and market orientation) provides a more holistic understanding of the drivers of firm performance.

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**Appendix 1: Market Orientation**  
**Deshpande, Farley, and Webster's (1993) Scale**

Please respond to the following statements about your business:

	<i>Strongly Disagree</i>				<i>Strongly Agree</i>	
We have routine or regular measures of customer service.	1	2	3	4	5	n/a
Our product and service development is based on good market and customer information.	1	2	3	4	5	n/a
We know our competitors well.	1	2	3	4	5	n/a
We have a good sense of how our customers value our products and services.	1	2	3	4	5	n/a
We are more customer-focused than our competitors.	1	2	3	4	5	n/a
We compete primarily based on product or service differentiation.	1	2	3	4	5	n/a
The customer's interest should always come first, ahead of the owners.	1	2	3	4	5	n/a
Our products/services are the best in the business.	1	2	3	4	5	n/a
I believe this business exists primarily to serve customers.	1	2	3	4	5	n/a