

Entrepreneurial Orientation and Business Performance: The Mediating Role of Organizational Learning and Innovation in State Owned Enterprise (SOE) in Indonesia

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Abstract: The purpose of the research discussed in this study is to ascertain the relationship between Entrepreneurial Orientation (EO) organizational Learning (OL), Innovation (IN) and Business Performance (BP) in State Owned Company in Indonesia. Entrepreneurial Orientation (EO) and its principles have increasingly been introduced to the industry to improve Business Performance (BP). However, little research summaries the model that exposes the relationships between EO and mediating role of organizational learning and innovation and demonstrates their importance to business performance. A survey to 90 managers of 168 Indonesia's state owned enterprises in indonesia would be conducted and analysis of data using Partial Least Square (PLS) modelling would be used to test the hypotheses.

Key words: Entrepreneurial orientation organizational learning, innovation, business performance, state owned company

INTRODUCTION

The SOE sector in Indonesia is large with total number of 168 and another dozen companies in which the government has a minority stake. In terms of the total assets held, these SOEs account for Rp 3.5 quadrillion (US\$300 billion). The total revenue approximations of these enterprises stood at Rp 1.5 quadrillion or about a fifth of the Indonesian Gross Domestic Product (GDP).

Their sector-wide presence is persistent with interests in energy, power, transportation, aviation, agriculture, banking and telecommunications, however. only one Indonesia SOE ranked in the Fortune 500 list; Pertamina. One of the method to improve it would be for the government to divest its stakes in the loss-making businesses and reform the profit-making ones. The reform would be for these enterprises to be publicly listed on the Indonesia Stock Exchange (IDX). This would ensure greater transparency of information diffusion regarding their corporate governance structure, subject them to rigorous requirements and expose them to increased public examination and independent audits. Another, step toward change would be appealing the best leader to the SOEs and engaging them to senior positions in a transparent an open and manner, for example state enterprises like Garuda Indonesia and Pertamina have grown under the leadership of their independent and

capable previous managers. Public enterprise leader will tend to behave as entrepreneurs, strive for efficiency and achieve profitability if the government ministry together with them are responsible for their compatible profit objectives. The acceptance of such objectives by both parties will help to move state enterprises away from political influence, improve performance towards a firmly market, learning orientation and innovation.

This study has two objectives, the first objective was to examine the relationship between entrepreneurial orientation organizational learning, innovation and its impact to business performance of SOE in Indonesia. The second objective was to investigate the mediating role of organizational learning and innovation in the relationship between entrepreneurial orientation and business performance.

A conceptual model of the key factors will be developed by taking the first step of review the literature as contextual to the development of the hypotheses. The next step is discussion of the variables, measures and the methodology used in the fieldwork.

Literature review

Entrepreneurial orientation: Entrepreneurial orientation is connected with methods, practice and decision making styles that managers use to act entrepreneurially which leads companies to develop product market orientation, take risks and act proactively (Real *et al.*, 2014). In relation

to firm's behaviour, Lechner and Gudmundsson (2014) also agree that entrepreneurial orientation is understood as the strategy-making processes, characterized by innovativeness, reactivity, risk-taking, competitiveness, aggressiveness and autonomy, facilitating the search of opportunities. Entrepreneurial orientation is a firm level outcome, management related preferences, beliefs and behaviours as expressed among a firm's top-level managers.

Entrepreneurial orientation as originally conceptualised by Miller, incorporate a firm's propensity for risk taking, innovation and proactiveness. Entrepreneurial orientation construct and added two components of competitive aggressiveness and autonomy. In explaining the construct describe Entrepreneurial orientation as the extent to which "top managers are motivated to take business related risks, to favour change and innovation in order to obtain a competitive advantage for their firm and to compete aggressively with other firms.

Lumpkin *et al.* (2003) theorised Entrepreneurial orientation as 'a frame of mind and perspective about entrepreneurship that are reflected in a firm's ongoing process and corporate culture'. Further Miller clarified that Entrepreneurial orientation encompassed a process or 'a way in which entrepreneurs behave in creating their 'new entry' be that entry new firm, a new product or technology or a new market'.

The five dimensions of Entrepreneurial orientation within a firm was described by Rauch as the following). Risk taking describes the ability of a firm to take bold actions through 'venturing into the unknown, borrowing heavily and/or committing significant resources to undertaking in uncertain environment's) Innovativeness involves the tendency 'to engage in creativity and and support new ideas, experimentation, novelty and creative processes that may result in new product services as well as technological leadership via R and D in new proces's) Proactiveness focuses on the 'opportunity-seeking, forward looking perspective characterized by the introduction of new products and services in advance of the competition and action in anticipation of future demand. Competitiveness aggressiveness refers to the 'intensity of a firm's effort to outperform competitors in the marketplace and is characterized by a strong offensive position to competitive threats differentiated between competitive aggressiveness (i.e., behaviour aimed at competitors) and proactiveness (i.e., behaviour oriented to taking the initiative toward clients). Finally, autonomy relates to 'independent action undertaken by entrepreneurial leaders or teams directed at bringing about a new venture and seeing it to fruition

(Gowen *et al.*, 2009). Previous research supports this interpretation as autonomy has been found to encourage innovation, increase the competitiveness.

According to Colbert *et al.* (2008) entrepreneurial orientation has been viewed as a strategic approach in decision making process along with means of achieving firm performance. Firms with high strategic proactiveness tend to identify, create and launch new opportunities to sustain competitive advantage. According to Rauch. Entrepreneurial orientation has its roots in the strategy making process literature and has been describes as the 'strategy making processes that provide organisation with a basis for entrepreneurial decisions and attraction's. Further Ismail and Rashid also posit that entrepreneurial orientation generally used to explain the behavioural tendency and it is about the intention and actions of individuals actively involved in dynamics processes.

Thus, Entrepreneurial orientation encompasses those and practices that provide a basis for entrepreneurial decisions and actions and comprises of strategy-making practices and processes, aimed at developing venture opportunities (Wales *et al.*, 2013).

The current study views entrepreneurial orientation as a dynamic capability firm-specific abilities that allows organizations to reconfigure their existing resources and continuously reshape the organization (Zahra *et al.*, 1999). According to this perspective, wealth creation and economic rents are a result of the interplay between the exploitation of existing capabilities and the development of new capabilities.

Organizational learning: The organizational learning theory is increasingly becoming a source of interest among researcher and practitioners and it is also becoming a point of widespread controversy and confusion, because there is no single perspective in current theory is sufficient to capture the multiple connections that learning creates and from it emerges. Organizational learning is widely discussed in the literature, ranging from information system to student learning in school system (Atwood *et al.*, 2010).

Research has shown that many successful learning models inspire new ways of thinking by individuals inside the organization. The literature on exploratory learning and exploitative learning focuses primarily on wether existing knowledge (exploitation) or new knowledge (exploration) is enhanced as a direct result of organizational learning. The literature on generative versus adaptive learning (Senge, 1997) takes into account wether organizational learning result in incremental change (adaptive learning) or radical change (generative learning) to the firm's existing knowledge base. The

literature on absorptive capacity concentrate mainly on whether the organization is able to effectively acquire and assimilate external knowledge (potential absorptive capacity) or transform and exploit this knowledge internally (realized absorptive capacity).

The ability to enhance its existing skills and competence is directly related to the level of knowledge-based resources owned by an organization (Zahra *et al.*, 1999). Knowledge-based resources can be defined as information-related assets that are applied by organizations to generate economics rents. The knowledge based resources are accountable for competitive capabilities of organizations (Smith and Lyles, 2003). For this reason, dynamic capabilities explain the role played by the process in the organization leading to the external acquisition and internal generation of knowledge (Zollo and Winter, 2002). Organization can utilize entrepreneurial orientation to reconfigure their resource base to develop new capabilities, by acquiring and internalizing knowledge.

Zahra *et al.* (1999) suggest a distinction between “acquisitive learning” and “experimental learning”. Acquisitive learning occurs when a firm acquires previous knowledge that exist outside its boundaries while experimental learning occurs internally when new knowledge is created . Acquisitive learning results primarily from the acquisition of knowledge-based resources and experimental learning result primarily from the integration and/or exploitation of knowledge-based resources (Yang *et al.*, 2009, 2004; Zahra *et al.*, 1999).

Experimental learning represent a competitively result that can be utilized by organizations to enhance their core capabilities (Yang *et al.*, 2009) whereas the acquisition of knowledge-based resources often precedes the ability of the firm to integrate and/or exploit these resources (Podolny and Page, 1998).

Innovation: Scholars have provided various definitions of innovations in an attempt to explain what they understand by innovativeness. Joseph Schumpeter was the first who discovered the critical role of innovation in economic growth of countries. He discussed that innovation appears like one of these patterns, the introduction of a new goods and the introduction of a new method of production, the opening of a new market, the conquest of a new supply source of raw materials or half-manufactured goods or carrying out of the new organization of any industry (Schumpeter, 1934). Innovation has been defined as the adoption of an idea or behavior that is new to the organization and may pertain to a product, service,

method, device, system, policy or program. The introduction of products and processes into organization enables the organization to develop a series of routines that facilitate its adaption to changes in the dynamic environment (Dixon, 1993). Innovation can enable organizations to adapt to those changes in their environments that leave them only two alternatives: to innovate or to die. In this disposition (Alegre and Chiva, 2008). Considered that the successful introduction of new products is the lifeblood of most organizations

Innovation has become widely recognized as a key to competitive advantage. Firms can achieve competitive success by creating superior value for customers through innovation (Drucker, 2013; Schumpeter, 1934). Firms would be able to obtain long-term success only if they can continually create new products, systems and service items to meet the demands of the customer.

The goal of innovation is to create business value by developing valuable ideas to customers. This is problematic for most companies to achieve due to the lack of a method and tools. The ability to innovate is considered as an important organizational capacity to secure long-term competitive position and is influenced by external and internal factors to the organizations and.

Innovation can be viewed as a sequential, three phase process that involves idea generation, idea development and the diffusion of developed concepts (Hansen and Birkinshaw, 2007). Along all the phases, managers must complete six critical task-internal sourcing, cross-unit sourcing, selection, development and company wide spread of the idea.

Innovation also has been classified using binary systems that differentiate between radical and incremental, product and process, continuous and discontinuous or technical and administrative (Gumusluoglu and Ilsev, 2009).

Furthermore, innovation is understood as a phenomenon with two different phases: initiation and implementation. The initiation phase entails “openness to innovation” and depends on whether the people within the organization accept or resist innovation. Some author refers to this stage as innovativeness or an innovative business culture and it is generally seen as a variable that reflects the culture, values and principles that guide the innovation-related behavior of the organization’s members. Hurley and Hult refer to the second phase using the term “capacity to innovate” which they define as the “degree of innovations actually adopted by the organization”. This concept is connected to the ability to successfully implement innovative ideas to the products, services and processes.

Table 1: Innovation definition

Scholar	Definition
Crowley and Karim (1995)	Innovation is not a simple flash of inspiration but an extended and organized process of turning bright ideas into successful realities
Wang and Ahmed (2004)	Organizational innovativeness is an organization's overall innovative capability of introducing new products to the market or opening up new markets, through combining strategic orientation with innovative behavior and process
Belliveau	"A new idea, method or device. The act of creating a new product or process. The act includes invention as well as the work required to bring an idea or concept into final form"
Zaltman	Company innovation is defined as the taking up of an idea or behavior in relation to a product, service, instrument, system
Daft and Weick (1984)	policy or program that is new to the company Slaughter Innovation is the actual use of a nontrivial change and improvement in a process, product or system that is novel to the institution developing the change
Rogers (1998)	"An idea, product or process, system or device that is perceived to be new to an individual, a group of people or firms an industrial sector or a society as a whole
OECD	"An iterative process initiated by the perception of a new market and/or service opportunity for a technology-based invention which leads to development, production and marketing tasks striving for the commercial success of the invention"

In this study, we define "capacity to innovate" as referring to outcomes of technological innovation in products, services and processes. We will analyze innovation from the perspective of both dimension-innovativeness and capacity to innovate-in an attempt to generate contributions of greater value to the literature. Some important definitions of this concepts are listed in Table 1.

Business performance: Organization are under great pressure to deliver value not only to their shareholders but also to other stakeholders and they believe BPM system can help them in this task (Ittner *et al.*, 2003). This may explain why many organizations are financing in the development of BPM systems (Neely *et al.*, 2005). The use of Business Performance Management is recommended for facilitating strategy implementation and enhancing organizational performance. Business Performance Management (BPM) comprise the use of financial as well as non-financial performance measure linked to the organization's business strategy. For Instance, Balanced Scorecards (BSC) (Kaplan and Norton, 1996a, b) and multi criteria key performance indicator (KPI) can be considered BPM systems (Hall, 2008).

According to Saniuk Business Performance Management (BPM) is a concept of management which focuses on providing employees with information for the effective performance of their duties. The main goal of BPM is the integration of all the financial and operational data, ensuring its quality, reliability and availability and includes the area associated with the planning, measurement and evaluation of the effectiveness of the organization.

In order to understand the process of identifying and selecting of BPM systems that will be the focus of their objectives, Franco-Santos *et al.* (2007) propose five different categories of BPM systems roles. These are: 'measure performance', encompass of monitor and

measure performance/evaluate performance; "strategy management: this category comprises the roles of planning, strategy formulation, strategy implementation execution and focus attention/provide alignment "communication", comprises the roles of internal and external communication and compliance with regulations; influence behaviour", encompasses the roles of rewarding or compensating behaviour, managing relationship and control and "learning and improvement" comprises the roles of feedback double-loop learning and performance improvement.

According to Nudurupati *et al.* (2011) in the 1940s and 1950s there was a bi industrial assault by a number of Japanese companies facing a number of quality issues such as lot sizes, defects, inventory wastes and processing wastes. The Japanese have then translated their solutions into a collection of tools, techniques, procedures, no commonly known as Total Quality Control (TQC), Just-In-Time (JIT), Kaizen which gave a competitive edge in global markets.

Prior to the 1970s; industries in the Western World based their management paradigm on its manufacturing and service capacity and sales (Neely *et al.*, 2005). Much of them emphasis on financial indicators for controlling the business such as sales, productivity, efficiency and ROI. Western countries put much of their emphasis in innovation and competed with major advance in Computer Aided Design (CAD), Computer Aided Manufacture (CAM), Materials Requirements Planning (MRP) etc. Daboub and Kaplan said that the traditional cost accounting models developed for mass production and few standardised products were up-dated to accommodate the business environment in 1970s . In the 1980s the West recognised that Japanese economic success with limited resources was the result of operational efficient and effectiveness. Japanese techniques and practices started to gain wide acceptance throughout the world. The cost accounting models

described the production processes using extremely simplified models such as Economic Order Quantity (EOQ). New dimensions of business performance such as quality, time, cost and flexibility came into the picture.

Hence a number of academics and practitioners recognised the need to change traditional accounting measurement systems to accommodate the new manufacturing philosophies and dimensions (Dixon, 1993). From the quality management and process improvement field we have seen approaches such as lean enterprise and six sigma, make extensive use of performance measurement to manage and improve performance of processes and organisations.

Towards late 1980s and 90's many academics have criticised the problems with the traditional financial measures based on lagging indicator and backward looking accounting system (Dixon, 1993; Kaplan and Norton, 1996a, b).

Since then a number of frameworks as well as tools and technique have been developed for designing performance measurement Neely *et al.* (2005) reports that from 1994-1996, there were >3600 study published on performance measurement which was described as a revolution. In many companies, non-financial indicators such as quality, customer satisfaction, cycle time and innovation were recognised. They acted as the leading indicators for the financial performance (Ittner *et al.*, 2003).

Some of the models and frameworks which made significant impact in designing performance measures in practice are Strategic Measurement and Reporting Technique (SMART).

The performance measurement matrix results and determinants framework, Balanced Scorecard (BSC) (Kaplan and Norton, 1992a, b) Cambridge Performance Measurement Systems (CPMS) Design Process (Neely *et al.*, 2005), Integrated Performance Measurement Systems (IPMS), reference model (Nahapiet and Ghoshal, 1998; Fang *et al.*, 2011) FFQM Business Excellence Model (EFQM, 1999). According to Neely *et al.* (2005), performance measurement is defined as “the set of metrics used to quantify both the effectiveness and efficiency of actions”, other scholar Hall (2008) defines BPM a system that “translates business strategies into deliverable results combining financial, strategic and operating business measures to gauge how well a company meets its targets”.

Similarly suggest that BPM “provides the information [financial as well as nonfinancial] that allows the firm to identify the strategies offering the highest potential for achieving the firm's objectives and aligns management

processes such as target setting, decision-making and performance evaluation with the achievement of the chosen strategic objectives”.

Franco-Santos *et al.* (2007) clarified the definition of BPM as “a system exists if financial and non-financial performance measures are used to operationalize strategic objectives. According to the definition proposed, systems such as those based on the BSC (Kaplan and Norton, 1996a, b) the performance prism (Neely *et al.*, 2005) or the levers of control framework are considered BPM. Systems adopting various KPI's are also considered CPM systems. However, systems such as traditional budgeting system or activity-based costing systems will not be considered as BPM mainly because they focus on cost drivers that are measured in financial terms only. Thus, they do not meet the requirement of having both financial and non-financial performance measures.

Franco-Santos *et al.* (2007) conducted a citation analysis containing each definition and extracted which the most cited definition is Neely, Gregory and Platts 234 citation whereas Kaplan and Norton (1996) 130 citation. The definitions selected from the literature and the results of the citation analysis are presented in Table 2.

This study used Franco-Santos *et al.* (2007), definition “A system exists if financial and nonfinancial performance measures are used to operationalize strategic objectives” because its consist of financial and non financial indicator and has strategic objective and target component in the definition.

To ensure that organization performance will achieve their objectives according to strategic implementation this research used Balanced Scorecard (BSC) introduced by Kaplan and Norton (1996a, b). The balanced scorecard is used to attain objectives, measurements, initiatives and goals that result from these four primary functions of a business. These four areas, involve learning and growth, business processes, customers and finance.

Hypothesis

Entrepreneurial orientation and organizational learning:

EO represents a strategic position that embraces entrepreneurial processes and behavior. While EO has been consistently linked to increased level of firm performance there has been less research examining how EO contributes to competitive success. For example, EO may be a primary determinant of the level of organizational learning that occurs within a firm (Wang and Ahmed, 2004) suggest that the two most important challenges facing entrepreneurial firms are how to expand their knowledge base and how to maximize benefit derived from their EO.

Table 2: Selected definition of BPM

Peneliti	Definisi
Franco-Santos <i>et al.</i> (2007)	“A system exists if financial and nonfinancial performance measures are used to operationalize strategic objectives”
Hall (2008)	“A system that “translates business strategies into deliverable results combining financial, strategic and operating business measures to gauge how well a company meets its targets”
Bourne <i>et al.</i> (2003)	“A business performance measurement system refers to the use of a multi-dimensional set of performance measures for the planning and management of a business”
Ittner <i>et al.</i> (2003)	“A strategic performance measurement system: provides information that allows the firm to identify the strategies offering the highest potential for achieving the firm’s objectives and aligns management processes, such as target setting, decision-making, and performance evaluation with the achievement of the chosen strategic objectives”
Otley (1999)	“System that provides the information that is intended to be useful to managers in performing their jobs and to assist organizations in developing and maintaining viable patterns of behaviour. Any assessment of the role of such information requires consideration of how managers make use of the information being provided to them” (main components of a PMS: objectives, strategy, targets, rewards, information flows (feedback and feed-forward)
Atkinson (1998)	“The process of strategic performance measurement begins with the organisation’s owners specifying the organisation’s primary objectives. Organization planners undertake strategic planning exercises to identify how they will pursue the organisation’s primary objectives. The chosen strategic plan results in a set of formal and informal contracts between the organisation and its stakeholders. The give and take between the organisation and its critical stakeholders will define the organisation’s secondary objectives. Secondary objectives derive their importance from their presumed effect on the achievement level of primary objectives. Secondary objectives are critical because they are the variables that the organisation’s employees use to promote success defined as desired performance on the organisation’s primary objective As employees monitor the level of achieved primary and secondary objectives, they can use the resulting data to revise their beliefs about or model of, the relationship between the secondary objectives and the organisation’s primary objective a process of organisational learning. The final step in strategic performance measurement is to tie incentive pay to performance measurement results”
Kaplan and Norton (1996a, b)	A balanced scorecard is a comprehensive set of performance measures defined from four different measurement perspectives (financial, customer, internal, and learning and growth) that provides a framework for translating the business strategy into operational terms
Neely <i>et al.</i> (2005)	A Performance Measurement System (PMS) is “the set of metrics used to quantify both the efficiency and effectiveness of actions”
Torres <i>et al.</i> (2016)	

In order to further clarify the nature of the relationship between EO and organizational learning, Kreiser (2011) developed theory to explain the specific mechanism in which EO that promote organizational learning. Kreiser (2011) suggest that three dimensions of EO contribute to acquisitive and experimental construct. It has been argued that pro-activeness offers the greatest relative contribution to acquisitive learning and innovativeness offers the greatest relative contribution to experimental learning. Meanwhile, risk taking characterizes an important component in generating both types of learning. Consistent with the arguments by Wang and Ahmed (2004) firm can utilize all three dimension of EO to generate the maximum levels of knowledge acquisition and experimental learning (integration and exploitation). Based on that explanation, we posit:

- H₁: Entrepreneurial orientation is significantly related to organizational learning

Entrepreneurial orientation and innovation: Schumpeter (1934), one of the pioneers of the classical entrepreneurship thought, argue that innovation is the central characteristic of entrepreneurial behavior. He suggests that an entrepreneur displays a five-fold

innovative activity: introduction of new goods, introduction of new methods of production opening new markets opening new sources of supply and industrial reorganization Ireland and Webb confirmed that Entrepreneurial orientation is manifest in product and process innovations. Entrepreneurial orientation can be considered as the processes, practices, philosophy and decision-making activities that lead organizations to innovation. The importance of entrepreneurial orientation to the survival and performance of firms has been acknowledged in the entrepreneurship literature. Innovation is a crucial factor in firm performance because of the evolution of the competitive environment. Innovation performance is considered to have a direct effect on firm performance. Also, Ireland and Webb argue that entrepreneurial actions have direct effects on product and process innovation.

Therefore as EO increases a firm’s autonomy, competitive aggressiveness, pr-oactiveness and willingness to take risks and innovate (Zahra *et al.*, 1999), EO and innovation performance can be linked with each other. Although, former literatures have traditionally conceived innovation as an indicator of entrepreneurship, however, a few researches have empirically analyzed this relationship. Hence, we hypothesize:

- H₂: Entrepreneurial orientation is significantly related to Innovation

Entrepreneurial orientation and business performance:

According to Rauch, for firms adopting EO it is likely to perform better than companies that adopt conservative orientation. In an environment of rapid change and shortened product and business model lifecycles, the future profit streams from existing operations are uncertain and businesses need to constantly seek out new opportunities. Firms may benefit from adopting an EO, innovate frequently while taking risks in their product market strategies. Previous studies showed that EO could significantly improve business performance. Many studies on EO and business performance have been associated to have positive results.

However, there are also studies that revealed that EO does not give positive results to business performance. Hence, the study of EO especially on dimensions are needed as many studies have proven there is a relationship between EO and business performance.

EO generally has a positive effect on business performance, however, several studies show that this main effect is context-sensitive, for example, Zahra and Covin identify the degree of hostility in the business environment as an intervening factor. In assessing international entrepreneurship, Zahra and Garvis argue that EO's contribution to business success depends on the degree to which executives perceive their firm's international business environment.

The meta-analysis conducted by Rauch reveals that the dimensions of EO vary independently of performance. The study carried out by Lumpkin and Dess analyzes two independent factors comprising EO (proactiveness and competitive aggressiveness) and argues that their relative impacts on business performance vary over the different stages of the industry's life cycle.

According to Yoo's study which is also part of th meta-analysis, the three factors comprising EO (innovativeness, pro-activeness and risk-taking) are closely interrelated. Similarly, Rauch identify differences in the relation between EO and objective compared to perceptual performance measures, thus indicating that EO is only related to selected indicators of business success. In their meta-analysis, Rauch also find that the relation between EO and performance varies substantially according to national culture. Business size and technological intensity of the industry. Therefore, the researcher hypothesizes that:

- H₃: Entrepreneurial orientation is significantly related to business performance

Organizational learning and innovation: Empirical studies support the relationship between organizational learning and innovation. Different types of learning and innovation are also related. For example, generative learning is the most advanced form of organizational learning and occurs when an organization is willing to question long-held assumptions about its mission, customers, capabilities and strategy and to generate changes in its practices, strategies and values. Such learning forms the necessary underpinnings for radical innovations in products, processes and technologies (Argyris and Schon, 1996; Senge, 1997; Senge and Sterman, 1992).

Organizational learning is a major component in any effort to improve organizational performance and strengthen competitive advantage. The literature also emphasizes the great importance of organizational learning and innovation for a company's survival. The development of new knowledge, derived from organizational learning, reduces the likelihood that a firm's competencies will become outdated, enabling the competencies to remain dynamic and thus favoring improvement in performance. Organizational learning usually has positive connotations, since this form of learning associates with performance improvements (Argyris and Schon, 1996; Fiol and Lyles, 1985; Senge, 1997). Various authors also show that innovation is essential to improving performance and that innovation comes into play in order to improve organizational performance (Argyris and Schon, 1996; Fiol and Lyles, 1985; Senge, 1997).

Different types of organizational learning (adaptive/generative) and innovation (incremental/radical) have a close, positive connection. The deeper innovation reaches, the greater the degree of learning required. Thus, the more innovative the products, services or methods, the greater the degree of critical capacity, skill and new and relevant knowledge necessary (Senge and Sterman, 1992).

The process of creating organizational knowledge which draws new knowledge from existing (organizational learning) is the cornerstone of innovative activities. Organizational knowledge creation is the process that strengthens innovation, not knowledge in itself (Nonaka and Takeuchi, 1995). Further organizational innovation depends on the organization's knowledge base and organizational learning in turn promotes this knowledge base. An increasing number of firms analyze organizational innovation as an organizational learning process or apply organizational learning models to specific aspects of the organizational innovation process. Organizational learning supports creativity, inspires new

knowledge and ideas, increases ability to understand and apply these ideas (Gumusluoglu and Ilsev, 2009), favors organizational intelligence and (with the organization's culture) forms a background for orientation to organizational innovation.

An organization committed to learning increases its organizational innovative capability because the organization is less likely to miss the opportunities that emerging market demand creates. Such organizations have the ability and knowledge to anticipate and understand customer needs, possess more and better state-of-the-art technology and use that technology to innovate. They also have a stronger capacity to understand rival's strengths and weaknesses and thus to learn from their successes and their failures and to generate greater innovative capability than competitors. Based on that we posit that:

- H₄: Organizational learning is significantly related to innovation

Organizational learning and business performance: The primary aim of organizational learning is to enhance performance quality and quantity, allowing the firm to increase and improve sales; to achieve more support and to create, maintain and enlarge its customer base. Further organizations that learn and learn quickly increase strategic capability, enabling them to sustain a position of competitive advantage and improve their results. These attitudes, behaviors and strategies of organizational learning will guide organizations to superior long-term performance. Organizations that encourage the learning spirit sacrifice performance to achieve future performance, since immediate performance is due to the organizational learning drawn from yesterday while future performance will be the product of today's learning process (Senge, 1997).

Organizational learning is the capability "within an organization to maintain or improve performance based on experience. This activity involves knowledge acquisition (the development or creation of skills, insights and relationships), knowledge sharing (the dissemination to others of what has been acquired by some) and knowledge utilization (integration of learning so that it is assimilated and broadly available and can be generalized to new situations)" (Dibella *et al.*, 1996). The development of new abilities and knowledge and the increase in the organization's capability enable organizational learning. Organizational learning involves cognitive and behavioral change. Organizational learning has become a need rather than a choice. Inability to learn is the reason most firms disappear before forty years have passed (Argyris and Schon, 1996; Senge, 1997).

The literature emphasizes the importance of organizational learning for a company's survival and effective performance (Argyris and Schon, 1996; Fiol and Lyles, 1985; Senge, 1997). Organizational learning has a positive influence on performance improvements. This positive influence normally occurs in both technological companies and manufacturing firms (Argyris and Schon, 1996; Fiol and Lyles, 1985). Firms that show a greater breadth, depth and speed of organizational learning have higher performance levels.

According to Santos-Vijande *et al.* (2012) Organizational Learning facilitates organizations' strategic flexibility, permits the implementation of efficiency-based operations and quality-based innovation through a continuous new knowledge that inspires creativity and ultimately, allows the achievement of CA. Santos-Vijande *et al.* (2012) also found that learning organizations can implement a double strategy that OL simultaneously supports the implementation of differentiation and cost leadership strategies. From this perspective, learning organizations have the ability to focus either on a pure cost leadership strategy or on a pure differentiation strategy. In this regard, Porter acknowledges that unique product advantages to meet customer requirements and lower prices for the customer than the competition are determinants for firm's competitiveness in modern markets. These results reinforce the role of OL as an organizational capability that sustains competitive strategy and contribute to better understanding OL's role in strategy implementation.

Santos-Vijande *et al.* (2012) also shows that OL enhances the firm's ability to respond rapidly to environmental contingencies that is strategic flexibility. Santos-Vijande *et al.* (2012) finding is consistent with the work by Santos *et al.* (2012) who indicate that successful firms need to learn quickly to be flexible in order to face unstable and unpredictable business conditions (Santos-Vijande *et al.*, 2012). Findings provides empirical evidence that both cost leadership and differentiation strategies have a positive and significant impact on customer performance which in turn mediates the impact of those competitive strategies on business performance. Based on the discussion we hypothesize that:

- H₅: Organizational learning is significantly related to business performance

Innovation and business performance: According to marketing theories organizations that concentrate on speed of innovation gain a greater market share which produces high income and high profitability (Sam *et al.*, 2012). Strategic theories stress that organizations that adopt an innovation first are able to create isolation

mechanisms. Because knowledge of the innovation is not available to competitors, these mechanisms protect profit margins, enabling the organization to gain important benefits. Likewise, the theory of resources and capabilities maintains that the capabilities, resources and technologies needed to adopt the innovation make external imitation more difficult and allow firms to sustain their competitive advantages and obtain greater organizational performance. Thus, a positive link exists between organizational innovation and organizational performance (Zahra *et al.*, 1999) or between different aspects of organizational innovation (innovation design or speed, flexibility) and organizational performance.

The innovation literature also includes various empirical studies supporting this relationship, the more valuable, imperfectly imitable and rare innovations (e.g., technological) are the higher performance will be. Organizations with greater innovation will achieve a better response from the environment, obtaining more easily the capabilities needed to increase organizational performance and consolidate a sustainable competitive advantage.

Innovation and the capacity to implement innovations determine whether the organization will achieve superior performance. Firms with greater capacity to innovate when combined with resources are more successful in responding to their environments and developing new capabilities which leads to competitive advantage and greater innovative capacity resulting in superior performance. Innovative products may create new demand and thus, facilitate firm's growth. If the innovation in company manages to set high barriers, preventing competitors from market entry, the company position in the industry is strengthened and the innovation can lead to persistent above-average returns.

Based on the above discussion and in line with Zavadskas *et al.* (2014) and Bernik *et al.* (2015) findings, innovation is hypothesized to be positively related to business performance and mediating the relationship between entrepreneurial orientation and business performance:

- H_6 : Innovation is significantly related to business performance

Organizational learning as a mediating variable between eo and firm performance: Many studies on EO and business performance have been associated to have positive results.

Organizational learning is the capability "within an organization to maintain or improve performance based on

experience. This activity involves knowledge acquisition (the development or creation of skills, insights and relationships), knowledge sharing (the dissemination to others of what has been acquired by some) and knowledge utilization (integration of learning so that it is assimilated and broadly available and can be generalized to new situations)" (Dibella *et al.*, 1996). Organizational learning is the process by which the organization increases the knowledge created by individuals in an organized way and transforms this knowledge into part of the organization's knowledge system. The process takes place within a community of interaction in which the organization creates knowledge which expands in a constant dynamic between the tacit and the explicit (Nonaka and Takeuchi, 1995). The development of new abilities and knowledge and the increase in the organization's capability enable organizational learning. Organizational learning involves cognitive and behavioral change. More than ever organizational learning has become a need rather than a choice. Inability to learn is the reason most firms disappear before 40 year have passed (Argyris and Schon, 1996).

The scientific literature proposes different definitions of innovation. This study uses the definition of innovation formulated by the OECD which analyzes innovation as "product, process and organizational. Empirical studies support the relationship between organizational learning and innovation. Different types of learning and innovation are also related. For example, generative learning is the most advanced form of organizational learning and occurs when an organization is willing to question long-held assumptions about its mission, customers, capabilities and strategy and to generate changes in its practices, strategies and values. Such learning forms the necessary underpinnings for radical innovations in products, processes and technologies (Argyris and Schon, 1996).

The literature also emphasizes the great importance of organizational learning and innovation for a company's survival and effective performance. Organizational learning is a major component in any effort to improve organizational performance and strengthen competitive advantage. The development of new knowledge, derived from organizational learning, reduces the likelihood that a firm's competencies will become outdated, enabling the competencies to remain dynamic and thus favoring improvement in performance.

Entrepreneurial firms encourage non-authoritarian structures that facilitate creativity, collaboration and dialogue. EO might provide the management support for the organizational learning process and capability (Zahra *et al.*, 1999; Wang and Ahmed, 2004). Similarly,

Zahra *et al.* (1999) consider that EO promotes and supports organizational learning and learning values such as teamwork or openness. EO might be considered as the basic managerial approach to support learning within organizations. Organizational learning usually has positive connotations, since this form of learning associates with performance improvements (Argyris and Schon, 1996; Fiol and Lyles, 1985). Organizational learning has been showed to have beneficial effects for firm performance (Zollo and Winter, 2002; Sinkula *et al.*, 1997). Therefore, we put forward the following hypothesis:

- H₇: Organizational learning mediating the relationship between EO and business performance

Innovation as a mediating variable between EO and firm performance: Many studies on EO and business performance have been associated to have positive results. Several researchers argue that entrepreneurial actions have direct effects on product, process and administrative innovations. EO increases proactiveness and willingness to take risks and innovate (Zahra *et al.*, 1999) within a particular organization. As a result, EO may be considered one of the antecedents of innovation performance (Sinkula *et al.*, 1997).

The innovation performance of a firm includes product and process innovations; these two kinds of innovation outcomes are very closely linked and constitute a highly complex process that generally involves all company functions. Various authors show that innovation is essential to improving performance and that innovation comes into play in order to improve organizational performance (Argyris and Schon, 1996). Consequently, innovation performance is considered to have a direct effect on firm performance (Renko *et al.*, 2009; Sinkula *et al.*, 1997) and can be considered as a more precise dependent variable of EO than firm performance (Dess *et al.*, 2003). The following hypothesis is therefore put forward:

- H₈: Innovation mediating the relationship between EO and business performance

MATERIALS AND METHODS

Research framework and design: To test the conceptual model, PLS-SEM will be employed using Smart PLS3 software. This tool is particularly suitable for small samples with complex models; a prediction-oriented method that does not require strong theory (Hair, 2010). In this regard, developing both measurement and structural models are important to adequately formulate the hypothesized relationships within the proposed model as presented below.

Samples and procedures: We test our hypotheses by focusing on 168 state owned companies in Indonesia. A pre-test will be carried out to 30 managers from different cluster of business, to ensure that the questionnaire items were fully understandable. The questionnaire will be applied using a 5-point Likert scale. The questionnaire was addressed to various company directors and managers. Nonresponse bias was assessed through a comparison of sample statistics with known population values such as annual sales volume or number of employees. The websites of Ministry of SOE provide this information for most of the firms in the industry.

Measures

Entrepreneurial orientation: EO was measured using the widely used nine-item, 5-point scale proposed by Covin and Slevin. This measurement scale has been used satisfactorily by a number of empirical papers.

Organizational learning: In light of the OL concept adopted in our theoretical review, we selected the measurement instrument developed by Alegre and Chiva (2008). It is a fourteen-item, 5-point scale that includes five different dimensions consistent with the previous literature: experimentation, risk-taking, interaction with the external environment, dialogue and participative decision making. Experimentation is defined as the degree to which new ideas and suggestions are attended to and dealt with sympathetically. Risk-taking is conceived as the tolerance of ambiguity, uncertainty and errors by members of the organization. This OL dimension refers to an organizational characteristic while the EO 12 dimension focuses on a managerial attitude. Interaction with the environment is defined as the scope of relationships with the environment. Dialogue is considered to be the sustained collective inquiry into the processes assumptions and certainties that make up everyday experience. Finally, participative decision-making refers to the level of influence employees have on the decision making process.

RESULTS AND DISCUSSION

Innovation performance: We conceive innovation performance as a construct with three different dimensions consistent with the previous literature: product and process innovation effectiveness and innovation efficiency. These dimensions have been widely discussed in innovation research. The OECD Oslo Manual provides a detailed measurement scale for assessing the economic objectives of product and process innovation and this is the scale that we propose for measuring product and process innovation effectiveness. This scale was put forward by the OECD to

provide some coherent drivers for innovation studies, thereby achieving greater homogeneity and comparability among innovation studies. Nowadays, many innovation surveys use this widely-validated scale (Alegre and Chiva, 2008). Innovation efficiency is the third dimension considered for measuring innovation performance. It is widely accepted that innovation efficiency can be determined by the cost and the time involved in the innovation project.

Firm performance: To measure firm performance, we asked general managers to rate their firm's performance over the last three years compared to competing firms. We used Venkatraman's business performance scale. Specifically, managers were asked to score their firm's growth and profitability on a scale from 1-5 with 1 indicating that the firm was among the lowest scoring competing firms and 5 among the highest scoring.

Control variable: Firm size was included as a control variable in the overall model since it explains variation in organizational performance. Firm size affects the endowment of significant inputs for the business process such as money, people and facilities and has been shown to influence organizational performance.

CONCLUSION

The study shows the strategy in various industry in stated owned enterprise in Indonesia. Specific application of corporate strategy tends to be connected with entrepreneurial orientation and organizational learning and innovation. The findings would be expected to suggest that company might increase their performance by creating high level of entrepreneurial orientation to support Organizational Learning and Innovation as their organization strive for specific competitive goals.

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