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Article

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MANAGEMENT | RESEARCH ARTICLE

The effects of analytical and holistic reasoning perspective on innovation and business performance, a study of state own, FDI and private company in Vietnam

Mai Ngoc Khuong^{1,2*}, Pham Dang Tuan^{1,2,3} and Nguyen Ngoc Duy Phuong^{1,2}

Abstract: This study examines the effects of analytical and holistic reasoning perspective on innovation and business performance in state owned, FDI, and private companies in Vietnam. The study was conducted on 382 companies. Data are analyzed through the use of partial least squares (PLS). The study results indicate that analytical and holistic reasoning perspective was a significant determinant of innovation and business performance. Furthermore, the analytical and holistic reasoning perspective impacted business performance both directly and indirectly. Thus, this study confirms the significance of an integrated approach to understanding the impacts of both direct and indirect effects of analytic and holistic reasoning perspectives on innovation and business performance in Vietnam. In

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PUBLIC INTEREST STATEMENT

Organizations are forced to look for new ways to improve their performance in today's world of ever-increasing competition. Improving a firm's performance necessitates the presence of multiple characteristics. Strategic decision making is critical due to the profound and significant impact it has on firm performance. Firms can maintain competitive postures, align internal operations with external environments, and survive threats and challenges by making good strategic decisions. These facts inspire us to conduct the research about relationship between analytical and holistic reasoning perspective with business performance. We hope that our research in exploring how the analytical and holistic reasoning perspective impacted business performance both directly and indirectly, in exchange, deep insights into studies of sustainable development in Vietnam can be highlighted.

addition, this study will contribute to the literature and in practice. It will help the policy maker to make good innovation and get high performance in the future. The limitations of the study will also be discussed.

Subjects: Operational Research / Management Science; Operations Management; Quality Management

Keywords: strategy; innovation; business performance; analytic reasoning perspective

1. Introduction

The world economy is developing day by day, globalization is increasingly fast and comprehensive. Businesses are being pushed to adapt and discover new methods to enhance their performance in a world of ever-increasing competition. Improving a company's success requires the incorporation of various features. Many previous studies usually focus essential factors influencing on business performance according to Aragón-Correa et al. (2007) and Jiménez-Jiménez and Sanz-Valle (2011). Today's managers, confronted with quickly changing and fast-paced competitive situations, are an interlinked global economy, heightened volatility, hyper-competitiveness, demographic shifts, knowledge-based competitiveness, and demassification of specific industries coupled with significant growth in others (Daft & Lewin, 1993). Such environmental circumstances put enormous pressure on firms to make crucial strategic choices. Management theorists have proposed that an entrepreneurial approach to strategy formulation is critical for organizational success to address such issues.

Recent statistics have indicated that a significant number Asian economies comprise of small and medium enterprises (SMEs), most of which are private companies (Nasir et al., 2017; Yoshino et al., 2016). To remain at the forefront of the intense financial competition, SMEs have become cognizant of the necessity to prioritize the role of leadership development while building strategic plans to sustain their tangible resources (Wang et al., 2010).

In this study, the author aims to examine the effect of the paradoxical strategic perspectives on innovation and business performance in the economy of Vietnam, a developing country, socialist-oriented market, under the centralized management mechanism and the direction of the state of Vietnam. In which, the influence of the state own company is gradually changing, the private company is playing a leading role, and the Foreign Direct Investment Company is playing a supporting role and creating a competitive driving force in economic development in general facing with challenges the domestic country issues as well as the rapidly changing international context that bring Vietnamese businesses opportunities as well as risks in terms of strategic management and business performance. Moreover, Vietnam follows the oriental culture, its behavior on people, culture, policies as well as strategy of business are quite different from developed countries and capitalist developing countries. The study surveys mainly three economic sections: State Own, FDI, and private companies in Vietnam, with the same survey problems and questions is to find how the effect of strategy on innovation and business performance of these three economic sections in the context of the Vietnam economy. Although the trend and high speed of globalizations is difficult to predict and Because of the competitive environment, business trends have changed quickly. The effectiveness of the strategy application in the context of three different economic sectors has great implications for government policy makers as well as calls for call for foreign investment and building good policies to create optimal results for businesses performance.

Furthermore, none of these studies investigates examine the effect of the paradoxical strategic perspectives on innovation and business performance in the economy of Vietnam especially related to three economic sections: State Own, FDI, and private companies. This study provides

the managers a better understanding of how to increase analytical and holistic reasoning perspective and innovation and improve the business performance.

In this study, PLS-SEM was employed to test the direct and indirect influences on business performance in a causal model. This paper consists of six sections; introduction, literature review and hypotheses, research methodology, results, discussion, and finally limitations and future studies.

2. Literature review and hypotheses

2.1. Empirical evidence on strategist's perspective and business performance

A business strategy is a set of synchronised and systemised activities aligning with a company's vision and mission to achieve a growth in profits. On the other hand, a business tactic is specific, intentional steps to accomplish strategic goals (Slevin & Covin, 1997). Customer-oriented business strategies targeting individualised products have been shown to help companies stay ahead of their games (Dess et al., 1997). Therefore, it is safe to argue an effective business strategy is one that successfully identifies a company's competitive advantage over its competitors.

Venkatraman (1989) explains that business strategy is not a continually evolving process that drives business performance but rather one that constantly influences the company's success. Thus, it can be extended the world of information systems and examined at the level of strategy and performance.

Priem et al. (1995) showed a favorable connection between rationality and performance. Environmental dynamism acted as a moderator between rationality and performance for the investigations. The term dynamism is the degree of business environment change that is unexpected. When businesses faced extremely dynamic settings, they were linked to good organizational performance. Firms with lower degrees of environmental dynamism do not show the same connection as those experiencing more environmental dynamism.

It is not surprising that the key factor to gauge and enhance an organization's performance is their business strategies (Barney & Arian, 2001; Pratono et al., 2016). The former in turn can be measured qualitatively and quantitatively through employees' and departments' efforts to attain their set business objectives and goals (Henri & Journeault, 2010; Randeree & Al Youha, 2009; Zehir et al., 2016). Thus, it is crucial to constantly measure and keep track of organizational performances as they play a vital role in the existence of both profit and non-profit organizations (Abu-Jarad et al., 2010).

Research by Hyvönen (2007) indicated that a customer-focused differentiating approach might lead to increased performance. To be more precise, a firm might be a market leader in the banking industry and have a competitive edge if it offers exceptional customer service (Heineke & Davis, 2007).

Previous research has indicated that a collaborative approach improves organizational effectiveness (Kim et al. (2004); Parnell (2010); Spanos et al. (2004). These researches show that firms may overcome the "stuck in the middle" dilemma related with joint business strategy by launching system enhancements that result in lower costs and increased distinctiveness (Wright et al., 1991). In addition, Gates and Langevin (2010), a collaborative strategy may have a favorable consequence if top management can enable staff to be more inventive while still managing expenses.

Apart from collaborative strategies, differentiation strategies defined as an approach capitalizing on a business's uniqueness to attract customers have been found to be a crucial factor to boost an organization's performance (e.g. Teeratansirikool et al., 2013). Another group of strategies to enable a business to gain a competitive advantage are cost-leadership strategies, which involve

offering customers products and services at a lower cost than competitors in the market while maintaining satisfactory quality (Kong et al., 2020). Some firms, on the other hand, employ what is termed environmental business strategies, prioritizing green technologies, sustainability and environmental protection as a part of their long-term plan of action (Quan et al., 2018). There is research evidence to demonstrate proactive eco-friendly strategies can enhance a corporate's operations and profit proficiency (Brulhart et al., 2017; Quan et al., 2018) although there may not be a strong correlation between these approaches and managerial efficiency (Rotzel et al., 2019).

2.2. Empirical evidence on strategist's perspective and innovation

According to Wischnevsky et al. (2011), A research by holding banks showed that products change follows technical and administrative change and that there is a momentum of the three kinds of changes (changes of goods, technological development, and change in the administrative process). Differentiation strategies (M. Porter, 1980) aim at delivering distinctive goods and services to consumers.

According to Schuler and Jackson (1987), Cost-reduction strategy includes improving competitiveness by reducing product or service costs. This technique improves production efficiency and lowers costs by adopting new technology, expanding the production scale or reengineering of production processes to allow a company to offer its goods or services at a cheaper price. The innovation strategy stresses the creation of distinct or different goods or services compared to those of rivals. Finally, the success of a plan for improving quality is accomplished by providing a quality level superior to other goods or services.

The findings of the research, Christa and Kristinae (2021), encourage the growth of innovation-driven activities to assist local goods to survive, when the buying power is reduced as a consequence of changes in business environments. Product innovation demands extensive understanding of various consumer markets, market research, and data analysis in developing product styles, quality, and features (Iyer et al., 2019; Jeong et al., 2019; Kristinae et al., 2019). Thus, Product innovation demands extensive understanding of various consumer markets, market research, and data analysis in developing product styles, quality, and features (Iyer et al., 2019; Jeong et al., 2019; Kristinae et al., 2019). Since management techniques are associated to customers and knowledge, and innovation activities serve as inputs to help enhance company performance, we may say that management methods and innovation activities are closely related

2.3. Empirical evidence on innovation and business performance

Product innovation (PROI) is the effort of the business member who manufactures products to increase and improve products created so far into better ones (Ashrafi & Zare Ravasan, 2018; Jeong et al., 2019). Commodities produced via innovation, innovation is a sequence of advancements through the application of science and technology to a product. This product innovation may occur as a result of many factors, including the customer's economics, which affects needs, a mix of modes and requirements, and a better price (Falahat et al., 2020; Kristinae et al., 2020). This process of innovation has to be carried out constantly, so that the product may continue to grow, improve and achieve perfection via scientific and technological application. The capacity to innovate goods and to enhance the commercial performance of new products may be developed in business and a range of organizational capacities can be created.

Goods produced will grow more outdated as times and needs change, since they will be unable to satisfy current requirements. As a result, these products provide a unique way to satisfy the requirements of today's consumers (Montiel-Campos, 2018; Solano Acosta et al., 2018). Product innovation is also carried out because innovative products get new product modes, product quality, product improvements, and product functionalities in order to boost business performance. Items with new features or abilities have an edge over their predecessors (Nakos et al., 2019). In other words, the enhanced products improve their quality (Jeong et al., 2019). To sustain and enhance company performance, it is critical to develop goods for local products.

Complementing product innovation is marketing innovation, the unsung hero to sustain a firm's income stability and growth (Quaye & Mensah, 2019). Regardless of the type, innovation is undoubtedly the backbone of successful business models as it helps to generate profits, enhance productivity and improve a firm's uniqueness (Bojnec & Tom Sic, 2020; Tidd & Bessant, 2020). It is no wonder that a reliable way for enterprises to thrive is to invest in innovation and make continuous improvements to their goods and services (Tidd & Bessant, 2020).

Although innovation benefits businesses on several counts (Chatzoglou & Chatzoudes, 2018; Enzing et al., 2011), it is a difficult process that involves a plethora of challenges due to uncertainty, risks, failure in experimentation and corporate structures (Andreeva et al., 2011; Vila et al., 2014). Innovation is by no means a simple task since it requires the drastic change of the existing formulae to create new products and services despite the fact that new models of operation may soon become replaced by newer ideas (Vila et al., 2014). Along the same vein, green innovation also has its own challenges such as dealing with radical eco-friendly technology changes although it can apparently enhance a business's performance (Kraus et al., 2020; S. -U. Rehman et al., 2021b).

However, research into the correlation between innovation and the maintenance of a competitive market advantage has yielded inconsistent findings. 2013) could not find definitive evidence of innovation significantly transforming the performance of the 113 automobile firms participating in their investigation. In contrast, a study conducted by Chatzoglou and Chatzoudes (2018) using both qualitative and quantitative data collection methods reported positive impacts of innovation on Greek manufacturing firms, in both direct and indirect ways. This study's findings appear to resonate with Khan et al. (2019) and Rehman et al. (2019a; 2019b), who reported innovation was a key factor leading to a corporate's success alongside with organizational learning and organizational capabilities.

The positive relationship between innovation and business performance has been shown in several empirical studies. The relationship between innovation and organization performance has also been a subject of interest to some empirical studies. A study of Deshpandé et al. (1993) among Japanese firms found that innovation and relative profitability, market share, and growth are positively correlated. According to the research done by Dwyer and Mellor, Australian businesses using a "technical offensive" approach were most effective in the introduction of new goods and in delivering on performance goals like profitability and perceived overall success. Baldwin and Johnson (1996) conducted a study of companies in Canada, and the study found that company performance indicators such as market share gain and return on investment were strongly impacted by innovation. According to (Salavou, 2002) which looked at SMEs in the food sector in Greece, product innovation was the most important driver of company success, as was shown by the Return on Asset.

Marketing innovation can be more accessible and the cost is cheaper than product innovation for a company. Therefore, it might help to improve the firm's position during a market. According to Akyos (2006) a marketing innovation involves new sales as well as marketing strategies. Similarly, (Günay, 2007) explains that marketing innovation encompasses improved product performance, manufacturing process, and service delivery. A study of Chen et al. (2006) stated that a marketing innovation may be defined as the use of new and original marketing strategies and processes and he states that creating innovative marketing strategies, processes, and tools has a major influence in corporate performance. A study of Polder et al. (2010), think that marketing innovation is a non-technological innovation and that companies innovate in marketing techniques to increase efficiency.

In terms of structural improvements and organizational changes (e.g., policies, practices, and communication), organizational innovations cause enhanced intra-organizational coordination and cooperation, which, in turn, create a suitable environment for the adoption and use of

technological innovations (Damanpour & Evan, 1984). A fundamental kind of organizational innovation may be categorized as being made up of different tactics, structures, and behaviors. For instance, it includes both competitive strategy (i.e., the importance of innovation, costs, and people) as well as business structures, like hierarchy, functional lines, and organizational boundaries. Various production inputs are also utilized, as are workflows, the distribution of work, job design, and suppliers and subcontracting partners; HRM practices including hiring and firing; and industrial relation practices involving the strategies and institutional structures influencing the relationship of labor and management.

Akyos (2006) believes that organizational innovation is often associated with new communication and cost systems. According to Hage (1999) organizational innovation may have a positive impact on product quality and productivity, interdepartmental information sharing, information and technology use capacity development. Organizational innovation is at the core of other innovations and triggers other kinds of innovation. New working methods are an organizational innovation. It is connected to the organization of knowledge, access to information, the development of new databases and the development of an organizational model for employee involvement in decision making. It may include the integration of R&D, production and business structure. It may be argued that organizational innovation creates time and economic advantages by enabling business functions to work together. Mergers and acquisitions are related to organizational innovation (Günay, 2007). According to Polder et al. (2010), organizational innovation is defined as the introduction of new business practices, organizational techniques, decision-making processes, and innovative ways to managing external connections. Ettlie and Reza (1992) firms change their approaches in order to satisfy their customers and compete with their competitors.

2.4. Business performance

Business performance is a method of achieving success that is driven by profitable business activities, a study of (Kristinae et al., 2019). Firm performance has been operationalized as sales growth, profit, cash flow, and shareholder value as frequently measured in marketing strategy research (Deshpandé et al., 1993).

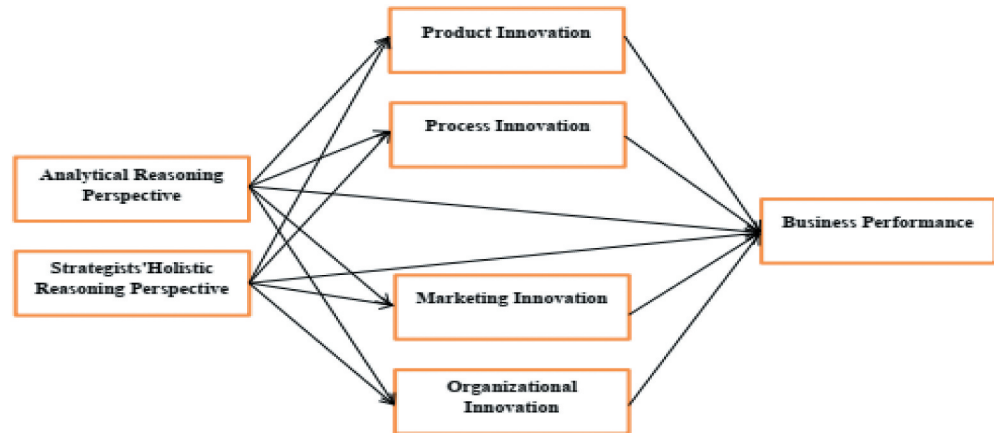
Malhotra and Miller (1998) interpret the business performance as a result of the interaction between actions taken related to competitive forces that permit the business to get used to the external environment, thereby integrating competence and usefulness. Some authors, Archibugi and Sirilli (2001), have studied and measured business performance variously and differently to include such as service quality, customer satisfaction, gross profit margin, employee satisfaction, increase market share, and return on investment. The study of Walker, (2011) thoroughly examined the 30 researches on organizational innovation and performance and concluded that this approach is beneficial for business performance. It may be concluded from this number of studies that innovation does really improve business performance.

2.5. Conceptual framework

In this study, analytical and holistic reasoning perspectives and innovation were considered as antecedents of business performance. This study also examines whether analytical and holistic reasoning perspective affects innovation and business performance, emphasizing on the mediating roles of innovation in the relationships between analytical and holistic reasoning and business performance. Finally, this research tries to find a model suggesting how analytical and holistic reasoning perspective and innovation influence business performance directly and indirectly and explain the business performance in detail. The suggested model is presented in Figure 1.

Many different factors have been used to evaluate organizational performance; these variables are divided into internal and external variables. External (environmental) and internal (organizational) variables both have a direct effect on business performance. Among the internal factors investigated in this study are the impacts of analytical and holistic reasoning on innovation and

Figure 1. Conceptual research model.



business performance. In general, according on the evidence and theories, we propose hypothesis as following:

- H1.** *Analytical reasoning perspective is positively correlated with business performance.*
- H2.** *Analytical reasoning perspective is positively correlated with marketing innovation.*
- H3.** *Analytical reasoning perspective is positively correlated with organization innovation.*
- H4.** *Analytical reasoning perspective is positively correlated with process innovation.*
- H5.** *Analytical reasoning perspective is positively correlated with product innovation.*
- H6.** *Marketing innovation is positively correlated with business performance.*
- H7.** *Organization innovation is positively correlated with business performance.*
- H8.** *Process innovation is positively correlated with business performance.*
- H9.** *Product innovation is positively correlated with business performance.*
- H10.** *Holistic reasoning perspective is positively correlated with business performance.*
- H11.** *Holistic reasoning perspective is positively correlated with marketing innovation.*
- H12.** *Holistic reasoning perspective is positively correlated with organization innovation.*
- H13.** *Holistic reasoning perspective is positively correlated with process innovation.*
- H14.** *Holistic reasoning perspective is positively correlated with product innovation.*

3. Research methodology

3.1. Measure of constructs and Data collection

A 40-item questionnaire was directly delivered to firms' managers. The questionnaire design had two parts: the first portion collected demographic information, while the second half asked questions regarding theoretical constructs with regard to business performance. The effective

response rate is 100 percent since 382 disseminated questionnaires, the total number of 382 valid answers, were collected. In terms of company type, the private companies weigh for the majority of 56%, then State Own and FDI and others at 34.6 %, 9.2 %, and 0.3%, respectively. Regarding the industry, trade and service comprise 55.2%, then production 25.9%, real estate 8.6%, and others 10.2%.

3.2. Statistical methods

In this study, structural equation modeling (SEM) has been applied to investigate the casual influence of analytical and holistic reasoning perspectives on innovation and business performance. SEM's ability to examine direct and indirect connections between variables, as well as evaluate interactions between latent variables, distinguishes it from other more surface and relational modeling methods. Structural equation models include measurement error as a common phenomenon in almost all fields, and are often built on latent variables. The partial method of least squares (PLS) approach of structural equation modeling was used in this study, and Smart PLS was used. The current research tried to evaluate the reliability and validity of the measures before finding these existing relationships inside the model.

4. The results of data analysis

4.1. Measurement model results

Before attempting to test the suggested model, it is essential to validate the measurement model's reliability and validity. (Barclay et al., 1995). The scales' convergent validity is dependent on the fulfillment of three conditions (Larcker & F, 1981; (Hair et al., 1998) all indicator loadings should exceed 0.60 (2) Composite Reliability (CR) should exceed 0.8; and (3) the average variance extracted (AVE) for each construct should exceed 0.5. Reliability was assessed with Cronbach's alpha coefficient. All of the constructs in the study achieved scores above the recommended value of 0.70 for Cronbach's alpha (Hair et al., 2009). Based on Table 1, the finding indicated that the convergent validity of these constructs was satisfactory (Larcker & F, 1981), except variable item Strategists' Holistic Reasoning Perspective (SHRP) with Cronbach's Alpha 0.673.

To evaluate discriminant validity, (Larcker & F, 1981) propose that the square root of the AVE of a latent variable should be greater than the correlations between the remainder of the latent variables. As Table 2 shows, the model has discriminant validity because the square root of the AVE for each construct is higher than the correlations between the variables that comprise the construct. Furthermore, all indicators' Cronbach's alpha values should exceed the recommended value of 0.6 (Nunnally, 1967), and all study measurement items noted in Table 2 exceed 0.6. Thus, Overall measurement items show acceptable item dependability.

4.2. Structural model results

The statistical significance of the corresponding path coefficients was evaluated. All of the hypotheses except for those related to process view and the effect of cross-functional integration on business performance were supported at the level of 0.05 (see Table 4 and Fig. P-value). From the direct hypotheses, twelve hypotheses are supported and only two are not supported. Marketing Innovation and Organizational Innovation have no relationship with Business performance with p value > 0.05 and Analytic Reasoning Perspective, Process Innovation, Product Innovation, Strategists' Holistic Reasoning Perspective have a relationship with Business performance with p value < 0.05 . Analytic Reasoning Perspective and Reasoning Perspective have a relationship with Marketing Innovation, Organizational Innovation. Process Innovation, Product Innovation with p value < 0.05 . and In addition to estimating the R^2 magnitude, the predictive relevance evaluation measure developed by (Stone, 1974) and (Geisser, 1975) was incorporated as another tool to determine the model fit. Thus, the model's capacity to estimate clear indications of underlying constructs may be examined. The model explained 29.9 percent of the variance in business performance. Analytic and Strategist's holistic reasoning perspective accounted for 20.1 percent of the variance in Product Innovation, 29 percent of the variance in process innovation,

Table 1. Measurement model evaluation

Constructs	Cronbach's Alpha	CR	AVE	Factor Loadings
Analytic Reasoning Perspective (ARP)	0.841	0.887	0.613	
<i>To understand strategic issues, successful managers depend heavily on their analytical capabilities.</i>				0.768
<i>Formulating strategies requires strong logical thinking.</i>				0.839
<i>Managers should be highly rational in developing strategy.</i>				0.806
<i>Strategies should be based on facts, not on impressions</i>				0.828
<i>It is dangerous to take bold strategic action without extensive market analysis</i>				0.661
Business Performance (BP)	0.826	0.878	0.592	
<i>In comparison with competitors, market share growth increases</i>				0.831
<i>In comparison with competitors growth in sales increases</i>				0.826
<i>We get the worth of our money, labor and time we spent for the firm.</i>				0.699
<i>Our firm can find credits easily when needed.</i>				0.779
<i>In comparison with competitors return on equity increases</i>				0.700
Marketing Innovation (MI)	0.777	0.856	0.599	
<i>We are dynamic in developing and using new sales channels (e.g., potentializing the Internet as a sales channel, presence on social networks, etc.).</i>				0.770
<i>We frequently introduce new techniques or channels for promoting our services (new advertising channels, new customer loyalty cards, etc.).</i>				0.773
<i>We frequently introduce new methods for pricing our services.</i>				0.817
<i>Our competitors use our marketing methods as a point of reference.</i>				0.733
Organizational Innovation (OI)	0.793	0.866	0.617	
<i>We frequently introduce organizational changes to improve the division of responsibilities and decision making (e.g., decentralization, department restructuring, etc.).</i>				0.745
<i>We frequently introduce new methods for managing external relationships with other firms or public institutions (e.g., new alliances, new forms of cooperation, etc.).</i>				0.809
<i>We often introduce new practices in work organization or firm procedures (e.g., new quality management practices, new information and knowledge-management systems, etc.).</i>				0.835
<i>The new organizational methods that we have incorporated have been pioneering in the sector.</i>				0.751
Process Innovation (PI)	0.845	0.890	0.619	
<i>We frequently compare our operating systems with firms at top international level to keep up to date.</i>				0.676
<i>We frequently update service delivery methods to increase productivity.</i>				0.804
<i>We frequently incorporate technologies to improve efficiency (e.g., water and energy saving devices, etc.).</i>				0.839
<i>We frequently incorporate technologies to improve the quality of our service.</i>				0.844
<i>We make major investments to incorporate new computer techniques, equipment and/or programs.</i>				0.760
Product Innovation (PROI)	0.831	0.880	0.595	
<i>We have introduced many new services onto the market.</i>				0.793
<i>We have introduced many modifications to existing services.</i>				0.797
<i>Our organization constantly seeks out new services.</i>				0.790

(Continued)

Table1. (Continued)

Constructs	Cronbach's Alpha	CR	AVE	Factor Loadings
<i>We have introduced more new services than our competitors.</i>				0.744
<i>The new services we introduced have caused significant changes in the industry.</i>				0.728
Strategists' Holistic Reasoning Perspective (SHRP)	0.673	0.800	0.502	
<i>Formulating strategies requires strong creative thinking</i>				0.658
<i>Strategizing should be driven by creativity and supported by analysis</i>				0.816
<i>The best strategists are more creative than analytical.</i>				0.648
<i>In making strategy, original ideas are more important than the cold facts</i>				0.700

34.8 percent of the variance in marketing innovation, and 26.8 percent of the variance in organization innovation. The Stone—Geisser Q2 (cross-validated redundancy) value was calculated to measure the predictive relevance consistent with a blindfolding process performed in PLS. As guided by (Chin, 2010), the model displays predictive relevance if the worth of Q2 is above zero. As per table 3, The present research obtained 0.160, which was considerably above zero, for the average cross-validated redundancy. Thus, the model has a good fit and a high predictive relevance.

Non-parametric bootstrapping was used (Wetzels et al., 2009) with nearly 2,000 replications to test the structural model (Gilani et al., 2016; Iranmanesh et al., 2016; Zailani et al., 2015). Table 4 presents the structural model that resulted from the PLS analysis. All the paths were significant, except for two (H6, H7). Therefore, H1, H2, H3, H4, H5, H8, H9, H10, H11, H12, H13, and H14 were supported; whereas, H6 and H7 were rejected. The strength of the effect of the determinants on the business performance was examined by the P-Values<0.05.

5. Discussions and implications

This study expanded research on the effects of analytical and holistic reasoning on innovation and business performance by examining how Analytic Reasoning Perspective, Process Innovation, Product Innovation, Strategists' Holistic Reasoning Perspective determine the business performance of the State Own, FDI, and private sector.

This study examines the effects of analytical and holistic reasoning on innovation and business performance in State Own, FDI, and private companies in Vietnam with samples of on 382 Companies. Our study not only discloses how four innovation types and strategies of business affect diverse business performance aspects, but it also points out that innovation exerts a mediator role between strategy and business performance.

The study results indicate that analytical and holistic reasoning perspective has a directly significant determinant business performance. Our data collected and interviewed from the top management of above mentioned companies. It is evidence that the result is consistent with the previous literature of (M. E. Porter, 1985; M. Porter, 1980) and (Gates & Langevin, 2010; Hyvönen, 2007). Porter's study found that super generic strategies of differentiation lead to above the high performance. Gates and Langevin (2010) finds that a collaborative strategy may have a favorable consequence if top management can enable staff to be more inventive while still managing expenses. (Hyvönen, 2007) and (Heineke & Davis, 2007) differentiation strategies make high performance. In this study, we mention two kinds of strategies of business that includes analytical and holistic reasoning perspective. In general, two kinds this may be the same way of strategy. In details, the measured items which survey are differences aspects. Through the survey and result, it

Table 2. Discriminant validity coefficients

	ARP	BP	MI	OI	PI	PROI	SHRP
Analytic Reasoning Perspective	ARP 0.783						
Business Performance	BP 0.350	0.769					
Marketing Innovation	MI 0.546	0.380	0.774				
Organizational Innovation	OI 0.433	0.410	0.685	0.786			
Process Innovation	PI 0.424	0.498	0.693	0.675	0.787		
Product Innovation	PROI 0.399	0.458	0.598	0.640	0.728	0.771	
Strategists' Holistic Reasoning Perspective	SHRP 0.356	0.344	0.402	0.419	0.461	0.332	0.709

Table 3. R square

	R Square	Q Square (cross validated redundancy)
Business Performance	0.299	0.160
Marketing Innovation	0.348	0.192
Organizational Innovation	0.268	0.153
Process Innovation	0.290	0.164
Product Innovation	0.201	0.108

is suggested that the strategy of business play a key role importance of business performance. To have a good and smart strategies in holistic and analytic make a business sustainable development and high performance.

With a startup business in Vietnam, this result may be a good lesson for them to learn for future development and with exist businesses would like to become a multinational Company in the world, must develop a strategy from the beginning, allocating resources in accordance with the global competition and execution. Through the results of the survey of FDI enterprises, we have a look that even differences cultures, environments and languages of FDI enterprises, when they applied good strategies and innovations, the results get high performance. Thereby also drawing lessons for Vietnamese businesses to prepare for when they want to invest abroad.

Moreover, the study results show that analytical and holistic reasoning perspective has a directly significant determinant innovations including product, process, marketing and organizational. Through this result, the findings suggest that a good strategy may be have good innovation. According to path analysis, analytical and holistic reasoning perspective has an indirect effect on business performance through process and product innovation. Strategy, process and product innovation are the key importance role in making business performance. It is explained that a good strategies plus good product and process innovation makes nearly 100% successful of business.

The study results also show that product and process innovations influenced business performance. This result is consistent with the study of Saeidi et al. (2013) and Löfsten and Lo (2014) and (Salavou, 2002). In which the marketing and organization innovation do not impact on business performance which is not consistent with the study of Karabulut (2015), the product, process, and organizational innovation have a positively influence on financial performance. The result shows that product and process innovation also take a key role important in making business performance beside the strategy of business. Marketing and organization innovation is not importance role compare to product and process innovation.

Product innovation is decisive for the survival of businesses in the current fierce competition. Customer needs are increasingly diverse and demanding, for example, the competition between Apple and Samsung. The product and process innovation in these two businesses is constantly changing. Due to the change in products innovation, it is necessary to change the process innovation as well as the entire internal process of the enterprise to bring optimal efficiency to the business.

The results of the current paper have various practical contributions that give benefits to owners/managers of State Own, FDI, and private companies in improving business performance. The result of our study offer significant implications for general managers, business professionals, and policymakers. Nowadays, general managers and policymakers focus on business performance. They can use the research framework of business performance in emerging economies such as Asian Countries to reduce cost and other fees that lead to enhancing business performance. General Managers and policymakers must concentrate on Analytic Reasoning Perspective,

Table 4. Path coefficient and hypothesis testing

Hypothesis	Relationship	Path Coefficient	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Decision
H1	ARP → BP	0.140	0.141	0.060	2.320	0.020	Supported
H2	ARP → MI	0.462	0.461	0.048	9.564	0.000	Supported
H3	ARP → OI	0.325	0.325	0.055	5.859	0.000	Supported
H4	ARP → PI	0.298	0.295	0.059	5.082	0.000	Supported
H5	ARP → PROI	0.322	0.321	0.064	5.036	0.000	Supported
H6	MI → BP	-0.075	-0.076	0.075	0.997	0.319	Not Supported
H7	OI → BP	0.058	0.060	0.077	0.751	0.453	Not Supported
H8	PI → BP	0.273	0.270	0.078	3.482	0.001	Supported
H9	PROI → BP	0.172	0.173	0.068	2.521	0.012	Supported
H10	SHRP → BP	0.117	0.119	0.056	2.093	0.036	Supported
H11	SHRP → MI	0.237	0.237	0.046	5.185	0.000	Supported
H12	SHRP → OI	0.303	0.305	0.052	5.825	0.000	Supported
H13	SHRP → PI	0.355	0.357	0.053	6.688	0.000	Supported
H14	SHRP → PROI	0.217	0.219	0.058	3.754	0.000	Supported

Process Innovation, Product Innovation, Strategists' Holistic Reasoning Perspective to measure business performance. From a managerial perspective, this study results play a crucial role in attaining competitive advantage through innovativeness and differentiation strategy. Innovativeness and differentiation strategy significantly assist in attaining competitive advantage.

This research gives some guidelines to aid managers in comprehending how to improve analytical and holistic reasoning perspectives, which was a significant determinant of innovation and business performance. Thus, as a result of our study, many recommendations for managers may be discovered. First, our research shows that analytical and holistic reasoning perspective was a significant determinant of innovation and business performance. Therefore, it recommends that organizations promote analytical and holistic reasoning perspectives. Analytical and holistic reasoning perspective play an important role in enabling individuals and enterprises to create, exploit, renew, and apply innovation to create the essential competencies to require improvement of business performance. Second, this study shows that analytical and holistic reasoning perspective is an essential determinant of innovations. Managers' support for innovation is crucial in the organization. Thus, managers should engage in analytical and holistic reasoning perspectives in order to foster innovation. Managers in companies must focus on creating a conducive environment for innovation and business performance. Thus, leadership must understand and use practically the strategic factors that affected innovation, resulting in improved business performance. Third, the results of this research show that process and product innovation had a direct effect on business performance. Process and product innovation are essential in forming an organization's potential to generate process and product innovation by nurturing the environment and decision-making that successfully foster the generation and implementation of knowledge. Thus, managers should remember that process and product innovation are essential to growing performance. Finally, the study shows that analytical and holistic reasoning perspectives positively and indirectly business performance through product and process innovation. Therefore, the product and process innovation play a medium role to connect analytical and holistic reasoning perspectives. In summary, the present study provides the managers a better understanding of how to increase analytical and holistic reasoning perspective and innovation and improve the business performance.

In summary, the findings demonstrate that analytical and holistic reasoning perspectives impacted business performance both directly and indirectly. According to path analysis, analytical and holistic reasoning perspective has an indirect effect on business performance through process and product innovation. The study results also show that product and process innovations influenced business performance. In which the marketing and organization innovation do not impact on business performance. Our study shows the importance of an integrated analysis of direct and indirect influences of analytical and holistic reasoning perspectives on innovation and business performance

6. Limitations and future studies

Several limitations should be considered when interpreting these results.

The first, study focuses on the effects of analytical and holistic reasoning on innovation and business performance. The impact of business performance may be seen in many areas, such as profitability, customer satisfaction, and profitability. It will be important to carry out more study to see whether these elements are significant for business performance.

Second, related to the data for collecting, it suggests that it may be beneficial to test the suggested model in different situations to further verify the validity of the results. We have relied to provide information on the constructions of interest with one informant from each organization. Although no major danger has been identified in connection with typical methodology distortions in the future research, data collection from many informants and their triangulation may enhance the trustworthiness of the results.

Finally, we limited our study to four firms that manufactured (trade service, production, Real estate, others). To understand a distinct outcome, other firms' industries may supply different findings. Findings need to be evaluated in multiple cultures, therefore be cautious when interpreting the results.

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