



**FACULTY OF HUMANITIES AND SOCIAL SCIENCES  
BUSINESS SCHOOL**

**PERFORMANCE MANAGEMENT SYSTEMS IN VIETNAM: ANTECEDENTS  
AND IMPACTS ON ORGANISATIONAL PERFORMANCE EXPLORED  
THROUGH A CONTINGENCY PERSPECTIVE**

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**Abstract:**

Adopting a contingency perspective, this study employs a sequential mixed research design using a questionnaire survey and case studies to explore performance management systems (PMASs) in relation to contingent variables, namely perceived environmental uncertainty (PEU), task uncertainty and organisational culture, and organisational performance in listed Vietnamese organisations.

Quantitative analyses indicate that NFPMs are adopted because these measures help managers to obtain information about different dimensions and areas of organisational performance. Although NFPMs are not used to a great extent in formulating and implementing business strategy, they are used to achieve pre-set organisational performance targets through tracking progression against these targets. Concerning organisational structure, departmental managers in today's Vietnamese context are delegated more authority to make decisions within their departments than they were before. These managers have a relatively high level of involvement in setting targets for their firm performance. Moreover, a highly objective style of performance evaluation and rewards was evidenced. Qualitative analyses also suggest a lack of cohesion between different control elements of PMASs.

Integrated findings indicate substantial impacts of PEU and task uncertainty on PMAS practices as motivating variables for changes in these practices. However, organisational culture characterised by relatively high power distance, collectivism and uncertainty avoidance hinder such changes. Simultaneously, new cultural practices, namely outcome-oriented culture and innovation-oriented culture, have emerged in Vietnam.

Quantitative findings indicate that only three PMAS practices, namely the adoption of NFPMs, the decentralisation of decision-making and the participation of lower managers in setting targets for organisational performance, positively impact upon organisational performance. Moreover, only interactions between PEU and task uncertainty and the two latter PMAS practices result in improvement of organisational performance. The qualitative results suggest that changes in PMAS practices result in better organisational performance through enhancing the decision-making quality and creating both extrinsic and intrinsic motivation for individuals.

**Key words:** *Performance Managements Systems, Vietnam, contingency theory, organisational performance, perceived environmental uncertainty, task uncertainty, organisational culture.*

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**Abbreviations:**

AVE: Average Variance Extracted

BSC: Balanced Scorecard

CR: Composite Reliability

FDI: Foreign Direct Investment

FPMs: Financial Performance Measures

GDP: Gross Domestic Product

HRM: Human Resource Management

IRR: Internal Rate of Return

KFSs: Key Success Factors

MAPs: Management Accounting Practices

MCSs: Management Control Systems

NFPMs: Non-financial Performance Measures

NPV: Net Present Value

PEU: Perceived Environmental Uncertainty

PLS: Partial Least Square

PLS-SEM: Partial Least Square-Structural Equation Modelling

PMASs: Performance Management Systems

PMESs: Performance Measurement Systems

ROI: Return on Investment

SBU: Strategic Business Unit

SOEs: State-owned Enterprises

VIF: Variance Inflation Factor

WTO: World Trade Organisation





## Chapter 1: An Introduction

This study reports findings on performance management systems (PMAS)<sup>1</sup> practices in Vietnam in relation to their contingent factors and the impacts of these practices as well as the effects of interactions between them on organisational performance. This chapter consists of five sections. Initially, the chapter elaborates background for the study (section 1.1) before the research objectives and research questions are presented (section 1.2). Subsequently, a brief description of the research methods is provided (section 1.3), which is followed by a presentation of the significance of the study (section 1.4). The chapter closes with a presentation of the thesis structure (section 1.5).

### 1.1 Background of the study

PMASs play a vital role in organisational control because the systems enable organisations to link their goals to their courses of action for the achievement of such goals Broadbent and Laughlin (2009). Thus, possession of appropriate PMASs might help an organisation to enhance its performance. This appropriateness considerably relies on whether PMASs match their contextual and institutional factors. Moreover, these contingent factors might lead to a variety of mechanisms through which PMASs impact organisational performance. Therefore, it is crucial to understand PMASs in their contexts rather than assuming the strong generalisability of prior findings, which is highlighted (Thompson, 1967; Otley, 1980; Otley, 1999; Chenhall, 2003; Ferreira and Otley, 2009; Franco-Santos *et al.*, 2012).

The extant literature in the field of organisational control provides various frameworks for understanding PMASs. For example, these systems could be understood through a framework of controlled objects proposed by Merchant and Van de Ven (2007) regarding result, action, personnel and culture controls. Simons (1995), who emphasises using PMASs for controlling business strategies, suggests an activation of four control levels, namely belief system, boundary system, diagnostic and interactive systems. Alternatively, Ferreira and Otley (2009) form understandings of PMASs in relation to a

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<sup>1</sup> PMASs refers to formal PMASs in this study.

list of 12 questions concerning means-end relationships of organisations. Therefore, the intention of PMASs is to influence actions or reactions of employees and their underlying cognitive mechanisms in order to motivate them to behave in a way that is consistent with their organisations' objectives and strategies. These systems not only allow the organisation to pursue its intended business strategies, but also to adjust these strategies under changing environmental conditions (Simons, 1995; Merchant and Van de Ven, 2007; Malmi and Brown, 2008; Ferreira and Otley, 2009).

Formal and informal PMASs co-exist within organisations. The former refers to written or documented PMAS practices while the latter is concerned with unwritten rules that considerably influence people's behaviours (Dirsmith and Covalski, 1985). This study focuses on formal PMASs for two reasons. Firstly, the study collects data from listed companies on the Ho Chi Minh Stock Exchange, comprising relatively large organisations in Vietnam. Therefore, it is reasonable to expect the existence of formal PMASs in these firms. This notion is supported by prior studies that confirm the existence of formal PMASs in large organisations rather than medium and small businesses (Bruns and Waterhouse, 1975; Merchant, 1981; Flamholtz, 1983; Chenhall, 2003; King *et al.*, 2010). For instance, King *et al.* (2010) suggest that Australian healthcare firms tend to adopt written budgets when they become bigger in size. Secondly, formal PMASs are consciously designed and recognised through for example documented rules, standards operating procedures, and budgeting systems (Langfield-Smith, 1997).

A general agreement is that PMASs consist of technical structure and human behavioural processes (Ansari, 1977; Franco-Santos *et al.*, 2012). The former fundamentally concerns the information networks within organisations (Ansari, 1977). The organisation can improve technical aspects of PMASs by making additions, replacements, reductions and operational modifications of management accounting techniques, as well as modifying management accounting information (Sulaiman and Mitchell, 2005). By doing so, the organisation can minimize cost, reduce waste and create value through effective resource uses (IFAC, 1998). Performance measurement (see section 3.2), the structure of PMASs, is focused upon in this study (Ansari, 1977; Franco-Santos *et al.*, 2007; 2012).

Human behaviours-based processes emphasise “the human and social process by which an organisation achieves its goals” (Ansari, 1977, p. 103). Historically, organisations have experienced three phases of practising these processes based on different approaches, namely: traditional management, human relations, and contingency theory (Ansari, 1977). In the first phase, behavioural controls were based on the scientific management and traditional management theory, which focused on formal power and economic sanctions. Individuals were controlled by tasks, responsibilities coupling with appropriate economic rewards and the threat to use sanctions. The management regarded superiors as directive and subordinates as passive. Human relations phases recognised relationships between social needs of subordinates - not only economic rewards, but also psychological satisfaction and their performances. This resulted in reduction of formal power and focus on functions of leadership in management. The contingency theory phase emphasises fit between control contexts and control techniques used to ensure achievement of individual performance (Ansari, 1977). This study focuses on various aspects of human behavioural processes including participation of lower level managers in setting targets for organisational performance, decentralisation of decision-making, and interactive use of non-financial performance measures (NFPMs), and objectivity in performance evaluation and rewards (see section 3.2).

Organisations tend to adapt PMAS practices to their new operational settings. These changes might be understood from two well-established points of view: the institutional perspective and contingency perspective (Wickramasinghe and Alawattage, 2007). The former, on the one hand, concerns the process of change in PMAS practices that is characterized by revolution rather than evolution (Burns and Scapens, 2000; Johansson and Siverbo, 2009). The contingency perspective, on the other hand, emphasises PMAS practices in relation to contextual factors and organisational performance (Fisher, 1995; 1998; Chenhall, 2003). This perspective focuses on the notion of fit between PMAS practices, contextual factors and organisational performance (e.g. Drazin and Van De Ven, 1985; Chenhall, 2003; Gerdin and Greve, 2004; 2008; Grabner and Moers, 2013; Burkert *et al.*, 2014).

Employing a contingency perspective, this study focuses on variables embedded in external environment, production technology, and organisational culture in an attempt

to explain the notion of fit in the context of Vietnam. These factors are highlighted by Chenhall (2003) in his review of contingency-based PMAS research since 1980.

On the one hand, the two former factors are viewed as driving forces for change in PMAS practices (Innes and Mitchell, 1990; Cobb *et al.*, 1995). In this regard, Vietnam provides a worthwhile setting for studying relationships between PMAS practices, the two aforementioned factors and organisational performance. It is reasonable to expect that PMAS practices in Vietnamese organisations have changed because of dramatic changes in the external environment and production technology derived from the economic reform of 1986 and the equitization programme of SOEs begun in 1992.

On the other hand, Chenhall (2003) points out the possibly considerable impacts of organisational culture on PMAS practices. The culture of an organisation is formed by its consciousness, its history, tradition, knowledge and experiences (Thompson, 1967; Chenhall, 2003; Broadbent and Laughlin, 2009). For O'Connor (1995), cultural practices of organisations are connected to cultural values of their nations. Influences of this institutional factor on organisational culture is highlighted in societies that transform from pre-modern to modern society (Thompson, 1967). A key characteristic of this society lies in the translation from a traditional form of social action based on “ingrained habituation” to a goal-oriented rational form of social action based on the enormous spreading of knowledge. Members of this society tend to follow traditional knowledge systems or ritual guidelines in what came to later be seen as unquestioning or thoughtless ways (Hoogenboom and Ossewarde, 2005). A standardized view of the world leads to difficulties for people when problems occurred require a variation of knowledge and skills. Thus, homogenizing influences of culture might constrain the organisation’s capacity to act rationally (Thompson, 1967). Moreover, culture may be fragmented, diverse, more open and less stable with an increase of sub-cultures: tradition versus urbanisation or its combination (Hopper *et al.*, 2009). Consequently, a considerable body of the literature suggests that culture creates barrier for changes, especially when cultural elements embedded in new PMAS practices are not aligned with the existing organisational culture (Markus and Pfeffer, 1983; Brooks and Bate, 1994; Bhimani, 2003).

In brief, this study attempts to examine PMAS practices focusing on both technical aspects and human behaviours-based processes in relation to contingent factors, namely, external environment, production technology and organisational culture, and organisational performance through a contingency lens. Research objectives and research questions of this study are stated in the following section.

## **1.2 Research objectives and research questions**

This study contributes to the growing knowledge about PMAS practices in developing countries through achievement of the following five objectives:

1. To explore characteristics of PMAS practices in Vietnam.
2. To identify the impact of the external environment and production technology on PMAS practices.
3. To identify the impact of PMAS in practice on organisational performance.
4. To understand mechanisms through which PMAS practices might result in better organisational performance.
5. To investigate whether organisational culture hinders or creates motivation for changes in PMAS practices.

In order to achieve these objectives, five research questions are addressed as follows:

1. What are the characteristics of PMAS practices in Vietnam?
2. To what extent do the external environment and production technology impact upon PMAS practices?
3. To what extent do PMAS practices impact upon organisational performance?
4. How do PMAS practices impact on organisational performance?
5. How does organisational culture shape PMAS practices?

## **1.3 Research methods**

A questionnaire survey and case study are adopted in a two-stage research process. In the first phase, a questionnaire survey enables the study to reveal characteristics of PMAS practices and identify the impact of PEU and task uncertainty on PMAS practices, the impact of PMAS practices on organisational performance as well as the effects of interactions between PMAS practices and the aforementioned contingent variables on organisational performance. In the second phase, the case study approach is pursued in relation to three listed companies - a Fertiliser Company, a Pharmaceutical

Company and a Software Production Company - enabling the study to triangulate between the quantitative and qualitative findings as well as to deepen quantitative results. Importantly, the case studies provide the researcher with an opportunity to qualitatively explore the influences of organisational culture on PMAS practices.

The study, then, employs both quantitative and qualitative methods to analyse collected data. Firstly, Partial Least Square-Structural Equation Modelling (PLS-SEM) with use of the analysis software tool Smart-PLS 3.0 is applied to analyse quantitative data obtained from the chief accountants of 90 companies listed on the Vietnam Stock Exchange. The data is sequentially analysed by an outer model and an inner model. The former is concerned with the validity and reliability of measures corresponding to the research constructs while the latter is used to examine relationship between these constructs. Secondly, a contextual, interpretive approach is emphasised. A qualitative content analysis is used as a part of a general case study approach to analyse 20 semi-structured interviews of the three case companies and documents over two stages. The first stage here involves reading transcripts, exploring and summarising meanings while the second stage involves clustering statements and identifying themes.

#### **1.4 Significance of the study**

This study also contributes to a growing body of literature concerned with PMAS practices in developing countries. In particular, the study provides a relatively comprehensive picture of PMAS practices in Vietnam where the economy underwent a process of reform almost 30 years ago. The findings suggest the notion of counter-vailing forces with overall effects on changes of PMAS practices. On the one hand, these changes are hugely driven by dramatic changes in external and internal environments. However, cultural traits in Vietnamese organisations characterised by relatively high power distance, collectivism, and uncertainty avoidance somehow hinder changes in these practices. Overall, changes in PMAS practices have enhanced organisational performance (as conventionally measured) as a result of improving the decision-making quality and creating intrinsic and extrinsic motivations for individuals.

The study contributes to the validity of contingency theory that emphasises the notion of fit between contingent variables, PMAS practices and organisational performance. The findings inform the presence of forms of fit in the context of Vietnam, namely the

selection form of fit and the interaction form of fit. The former concerns congruence between changes in contingent variables and PMAS practices while the latter refers to effects of a proper matching between PMAS practices and contingent variables on organisational performance. Moreover, the study suggest the non-existence of the systems form of fit in the Vietnamese context: organisations might not achieve internal consistency (or cohesion) between various PMAS practices and between various PMAS practices and contingent variables.

The study is of potential benefit not only to listed companies on the Vietnam Stock Exchanges, but also to other Vietnamese companies and professional bodies such as CIMA. The findings suggest changes in PMAS practices are needed for organisations facing higher uncertainty caused by internal and external factors. However, organisations need to identify challenges rooted in their cultural traits. Importantly, organisational leaders need to evaluate cultural differences between generations and cultural changes in their organisations, and to embrace the training and support offered by professional bodies, in order to experience success via new PMAS practices.

## **1.5 Structure of the thesis**

The thesis is organised in nine chapters as presented in Figure 1.1. Chapter one, the present chapter, provides the background of the research, research objectives and research questions, research methods, the significance of the study and the structure of the thesis. Chapter two comprehensively presents contextual and institutional factors related to business environment in Vietnam. Chapter three is a systematic review of literature related to PMASs, which enables the researcher, for the purpose of this study, to distinguish PMASs from management control systems (MCSs) and performance measurement systems (PMESs) that tend to be interchangeably used in the management accounting literature. In particular, five PMAS practices are further discussed. This is followed by a comprehensive review of contingency theory which substantially informs the conceptual and analytical framework of the study.

Chapter four elaborates the conceptual framework of the study, which is translated into research hypotheses explored in the quantitative phase in relation to the impact of PEU and task uncertainty on PMAS practices, impacts of PMAS practices on organisational performance and the effects of interactions between PMAS practices and the

aforementioned contingent variables on organisational performance. This framework is also extended by adding organisational culture as an important institutional factor for the case study approach in the second phase of study. Chapter five justifies the researcher's position in conducting social sciences' research. This helps to provide a rationale for the selection of a mixed research design encompassing a questionnaire survey and a case study approach as well as quantitative and qualitative analysis. Chapter six and seven present quantitative and qualitative findings generated from analysing the questionnaire, the semi-structured-interviews and the documents (coupled with a contextual appreciation and analysis).

Chapter eight presents an integration of quantitative and qualitative results and discuss them in relation to the literature and the study context. Chapter nine begins with a summary of findings. It further elaborates the contribution of the study to a body of literature concerning PMASs, especially in transitional economies. And it articulates the implications of the research. Limitations of the study are acknowledged before providing recommendation for future research.

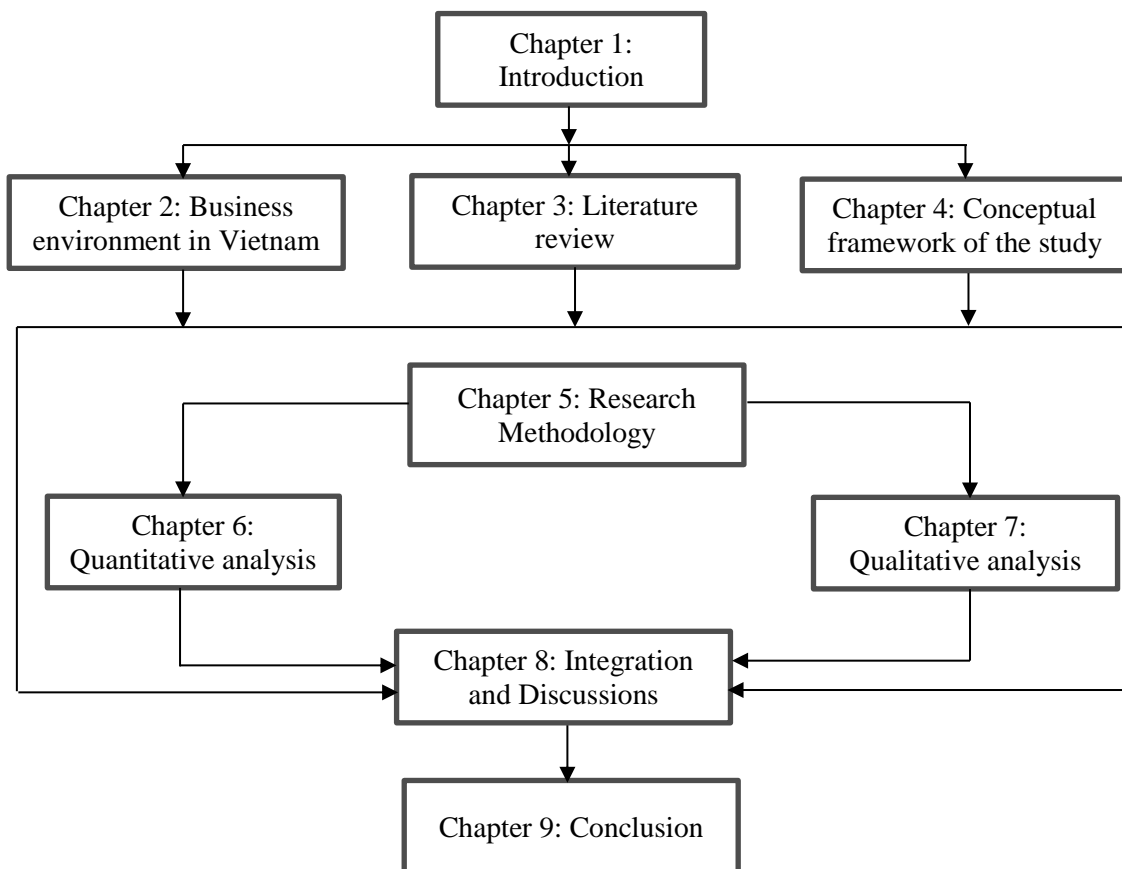


Figure 1.1: Structure of the thesis



## **Chapter 2: Business Environment in Vietnam**

This chapter aims to present an overall picture of the Vietnamese business environment, which provides key contextual insights for the study, including in relation to geography, population, history, politics and economics. The chapter, divided into 6 sections, begins with the geography of Vietnam (section 2.1), followed by insights into the country's historical background (section 2.2). The chapter then provides an outline of Vietnam's economy since its economic reform (section 2.3). After that, key characteristics of Vietnamese culture are discussed (section 2.4) before a presentation of changes in organisational management (section 2.5) and a chapter summary (section 2.6).

### **2.1 Geography of Vietnam**

#### ***2.1.1 Location and climate***

Vietnam is one of the developing countries occupying a strategic location in South-East Asia as shown in Figure 2.1. Being shaped as an elongated S, the country's land lies between latitudes  $8^{\circ}34'$  and  $23^{\circ}23'$  north and longitudes  $102^{\circ}109'$  and  $109^{\circ}24'$  east with a total land area of 330,951 square kilometres. The total land boundaries are 4,600 kilometres bordering with China in the North (1,400 kilometres), with Laos and Cambodia in the West (2,100 kilometres and 1,100 kilometres respectively). The eastern coast line stretches for 3,260 kilometres along the Gulf of Tonkin and South China Sea (Huu Quynh *et al.*, 2001). Vietnam has a tropical monsoon climate with high humidity over the year, which varies between Northern and Southern areas. The former has two seasons (dry and rainy) while the latter has four seasons (spring, summer, autumn and winter) (Huu Quynh *et al.*, 2001).

#### ***2.1.2 Population and language***

The population is approximately 90 million (ranked 14<sup>th</sup> in the world). More than 50% are within working age. The majority of the labour force is working in the agricultural sector (about 55%) while the remainder is equally distributed to service and manufacturing. This labour force can be considered an advantage in the process of transformation because Vietnam has a higher literacy rate and better education than

other nations with similar levels of per capita income. Vietnamese is the official language of the country (Asian Development Bank, 2013).



Figure 2. 1: Map of Socialist Republic of Vietnam

## 2.2 Historical background of Vietnam

### 2.2.1 Old history of Vietnam

The Hung Dynasty, founded in 700 BC, is considered the first Vietnamese state. Its land only covered the Northern area of modern Vietnam. In 208 B.C, the Hung Dynasty was taken over by Thuc Phan (An Duong Vuong) who was the founder and the King of Lac Kingdom. In 179 BC, Trieu Da, the Chinese Lord of Nam-Viet Kingdom located in Southern China, took over Lac Kingdom. This began a period of Chinese colonization lasting more than 1,000 years (179BC-905AD) in the history of Vietnam (Huu Quynh *et al.*, 2001).

Since 179 AD, the Vietnamese organised numerous revolutions in order to gain independence for the country with two well-known revolutions. The first victory gained by Ly Bi in 543, which resulted in a period of an independence in Vietnam known as

Van Xuan until Chinese re-controlled Vietnam in 602. In 905, a victory gained by Khuc Thua Du opened an independent period for the country after more than a century of Chinese colonisation. Vietnamese people started to build their independence along with numerous wars against Chinese invaders. From the 10<sup>th</sup> century to the 15<sup>th</sup> century, Chinese empires re-gained their control over Vietnam at several times (in 981, 1075-1077, the 1250's, 1280's, 1406-1427). Then, Vietnam was governed by its people until 1858 when the country underwent conquest by the French (Huu Quynh *et al.*, 2001).

## ***2.2.2 Modern history of Vietnam***

### *2.2.2.1 Vietnam before its independence (1858-1945)*

France's involvement in Vietnam's affairs since the 16<sup>th</sup> century was motivated by the propagation of Christianity and profit through trade in spices (Forbes and Henley, 2012). In 1858, a military intervention marked the official presence of the French in Vietnam as "colonizers" from 1858 to 1954 (Pierre and Daniel, 2011). The French colonial policy was primarily motivated by economic gain through exploiting the natural resources and searching for new markets for capital expansion. This was legitimized by their "the civilizing mission" through introducing modern Western values and institutions (e.g. schools) to the native population (Duiker, 1983). Vietnam was controlled by the French with three administrative systems with its direct governance in South and indirect control in the Central and the North through co-operation with the local ruler from 1897 to 1945 (Pierre and Daniel, 2011).

Although the French implemented tight policies for their economic benefit through high taxation, exasperating monopolies and opposition to Vietnam's industrialisation, their policies on educational reform had certain impacts beyond this on the transformation of traditional Vietnamese culture. A rigid French system of education was substituted for Vietnam's Chinese-oriented system (Joseph, 1969). Western values and culture were introduced and Chinese ideograms became only an object of study. While French was not the official language of the country, it co-existed with Vietnamese in the schools. Various aspects of Western cultures and values were diffused and adopted by Vietnamese in the press, publishing, broadcasting, cinema and art (Pierre and Daniel, 2011).

### 2.2.2.2 *The country since its independence*

In 1945, the North and Central of Vietnam were completely controlled by the Communist Army after outstanding achievements of the victory of the August Revolution, which opened an independent era for a modern Vietnam. On the day of 2<sup>nd</sup>, September, 1945, the president Ho Chi Minh declared national independence in Ba Dinh Square, which followed the first national election for the new National Assembly in January, 1946 (Huu Quynh *et al.*, 2001).

“All men are created equal, they are endowed by their Creator with certain inalienable rights, and among these are life, liberty, and the pursuit of happiness...For these reasons, we, members of the Provisional Government of the Democratic Republic of Vietnam solemnly declare to the world that Vietnam has the right to be a free and independent country and in fact it is so already. The entire Vietnamese people determine to mobilise all their physical and mental strength and to sacrifice their lives and property in order to safeguard their independence and liberty”. (The Proclamation of Independence of the Democratic Republic of Vietnam, 1945)

Vietnam was divided into zones – a Communist North and a French South. France maintained its army's presence in Northern Vietnam until 1945 when the Geneva Agreement 1954 was signed after the victory of Dien Bien Phu. The Vietnamese conflict was not ended by this Agreement because of the replacement of the United States for the French in Southern Vietnam. A stable non-communist regime in Southern Vietnam, The Republic of Vietnam, based on the Western democratic and modified capitalist model, was built as a keystone to serve American emerging strategy towards halting the further of communist expansion in Southeast Asia (Duiker, 1983). Although politics was a direct reason for the division of Vietnam, this might be rooted in Southern Vietnam's distinctions of from the remainder of the country. Southern Vietnam was less impregnated by Confucian culture than the northern and central regions under Chinese colonisation for more than a century. This enables the colonizer's culture, values, political and legal practices to penetrate into society (Pierre and Daniel, 2011).

Vietnamese moved from a period of being anticolonial and anti-French to the phase of the civil war and anti-Americanism until 1975 when the Communist North took over the South as an achievement of the 30<sup>th</sup> April Victory (Duiker, 1983).

The failure to develop a Westernized political system in Southern Vietnam is partially because of a fast communist expansion during the Cold War. Another reason for this lies in severe class division, and intimidating economic and social problems at that time.

These factors coupled with historical and cultural factors within Vietnamese society that strongly resisted to Western democratic values and practices. Thus, new democratic experiments were considered direct counters to the political and social traditions inherited from the past (Duiker, 1983).

#### *2.2.2.3 The political system*

Currently, Vietnam is operating under a one party system, with the Communist Party of Vietnam leading the State and Government. While national policies are guided by the Communist Party of Vietnam, the Government led by the Prime Minister is responsible for decisions on a day-to-day basis regarding internal and external affairs. The National Assembly represents Vietnamese people to legislate and makes decisions for national issues as well as supervise all activities of the State (Lucius, 2009). The Communist Party of Vietnam maintains its absolute leadership specified in Article 4 of the Constitution 2013: “the Communist Party is leading force of the State and society”.

### **2.3 Vietnam’s economy since the country’s reunion**

#### *2.3.1 The economy before the economic reform (1976-1986)*

Vietnam began to build a socialist economy based on the centrally planned model of Soviet Union for Northern and Southern Vietnam. This model is characterised by focusing on heavy industry and collectivization of agriculture. The economic activity followed a State’s plan regarding pre-set targets, resource allocation, product production and distribution through a leading role of SOEs (Fforde and de Vylder, 1996). A second five-year-plan (1976-1980) followed the first five-year-plan applied for Northern Vietnam (1960-1965) aimed to create transformations in production relations, ideology and culture, and science and technology. The South that had adopted a capitalist economic model was forced to employ the same model with the North in order to ensure unification of the country. This involved collectivizing agriculture and developing heavy industry. Except for family ownership, all major private industrial and commercial enterprises were declared nationalized (Duiker, 1983).

Despite certain achievement in the first three year of the plan, the plan failed to achieve its overall pre-set targets due to a paucity of financial resource. This is partially because

defences expenditure for the war with Cambodia and China (1978-1979) absorbed a huge national budget while external funds hugely fell. Economic assistances from the Soviet Union that played a vital role in Vietnam's economic recovery process significantly reduced (SarDesai, 1992). Consequently, Vietnam faced huge challenges when a socialist society was built from an economy characterized by small-scale and labour-intensive forms of production coupling with lack of the most crucial instrument of capitalism – the profit incentive (Duiker, 1983). This resulted in the first approvals of economic liberalization in the third-five-year plan (1981-1985) with the retention of private enterprises in Southern Vietnam along nationalized ones (SarDesai, 1992).

### ***2.3.2 The economy after economic reform (1986-present)***

#### *2.3.2.1 The economic reform*

A “subsided economy” in Vietnam was in a crisis in the late 1980s. One of the primary obstacles was the foreign debt crisis, which was a consequence of heavy dependence on external sources for the economic growth while foreign trade was modest. This coupled with a severe deficit of the State budget, a high rate of inflation (487, 316 and 306 per cent in 1986, 1987 and 1988 respectively), inadequate labour skills, an energy shortage and an economic embargo (Duiker, 1989; Balazs, 2008). In particular, the operation of a centrally-planned economy led to the co-existence of two pricing systems: a state price and a market price (Le, 2003). In 1986, the economic reform aimed to establish a market-oriented-economy officially called “a socialist market-oriented economy”, considered a solution to the country's problems (Duiker, 1989; Balazs, 2008).

The introduction of new economic policies at the initial stage (1968-1989) motivated people to work harder and more efficiently. For instance, peasants were allowed to share a much larger proportion of the output than before. Importantly, price liberalization in 1989 including goods prices, interest rates and the foreign exchange rate is considered the first step towards a market-oriented economy. Other types of ownership that were recognised and enabled to legally co-exist with collective and state ownership have gradually gained equal participation in various business activities (Balazs, 2008). Regarding the nature of the process of economic reform, some (e.g. Dixon, 2003; Guo, 2004) point out that differing from Russia and Eastern European countries that took a radical approach, Vietnam (like China) followed a gradualist

approach to its economic reform. The old mechanisms were not completely destroyed and new mechanisms were not immediately installed. New market institutions were gradually introduced to enhance the effectiveness of existing institutions. A high level of state intervention and significant control of production through state ownership become means for balancing between its political suitability and economic feasibility.

The process of economic reform since 1986 gradually introduced and established market regulations and institutions to create a common legal framework for the market-oriented economy. Firstly, the land laws were reform (in 1987, 1993, 1998, 2001 and 2003). Secondly, there was the introduction of two banking systems, which was followed by an establishment of a bond market for short-term loans and a bidding market for treasury bills in 1990. The operation of foreign banks and other financial institutions were gradually allowed since 1997. Thirdly, the labour market was recognised and a legal framework was approved in 1994. Fourthly, the Ho Chi Minh Stock Exchange and the Hanoi Securities Trading Centre were inaugurated in 2000 and 2005 respectively. Fifthly, numerous laws were built, amended and replaced to fulfil requirements before officially joining the World Trade Organisation in 2007.

#### *2.3.2.2 The equitization program for SOEs*

In Vietnam, the equitization of SOEs refers to transforming SOEs into joint-stock companies through selling the State's share to private investors commenced in 1992. Initially, the main purpose of this program was to reduce the fiscal burden through improving the economic efficiency of SOEs (Loc *et al.*, 2006; Nguyen, 2008). The Government's review of SOEs in the late 1980s revealed existence of serious problems in SOEs' operations, including massive financial losses, inadequacy of corporate governance, lack of accountability for using the State's assets, as well as unclear governmental control mechanisms for monitoring SOEs (Lan, 2009). Differing from privatization in the United Kingdom that involves passing that ownership and operations of the company from the government to private owners, the Vietnamese government still maintains its control and holds a decisive voting right in numerous equitized SOEs. Moreover, a substantial portion of the shares are acquired by the company's managers and employees who are prioritized to buy the shares sold.

Equitized SOEs can be privatized if the State no longer holds companies' share after a certain period of time (Loc *et al.*, 2006; Nguyen, 2008).

The equitization of SOEs can be divided into five stages (Nguyen, 2008). The pilot period (1992-1996) involved profitable non-strategic small and medium SOEs whose managers and employees were willing to participate in the programme. Strategic SOEs are enterprises play a vital role in the national economy (e.g. electricity, gas, telecommunication, coal, water supply or insurance). After five years, only five SOEs were equitized (Loc *et al.*, 2006; Nguyen, 2008). This extremely slow speed of equitization could lie in the voluntary participation of SOEs in the programme coupling with lack of a comprehensive formal framework for implementing equitization during the pilot period. Thus, SOEs also fear to lose benefits from their current status such as subsidized credits, or land access. Another reason is the inadequacy of the fund to solve problems related to worker compensation and re-training (Nguyen, 2008). As shown in Table 2.1, the government held a maximum of 30.2% of the shares while employees held a much higher portion of the shares than outside shareholders.

Firm name	Capital (billion VND*)	Ownership structure (%)		
		State	Employees	Outsiders
Transportation Service Co.	6,200	18.0	77.0	5.0
Refrigeration & Electrical Engineering Co.	16,000	30.0	50.0	20.0
Hiep An Shoes Co.	4,793	30.0	35.2	34.8
Animal Food Processing Co.	7,912	30.0	50.0	20.0
Longan Export Product Processing Co.	3,540	30.2	48.6	21.2

\*Exchange rate: 1USD = 15,000 Vietnam dong

Table 2.1: Capital and ownership structure of the first five equitized SOEs (Loc *et al.*, 2006)

The second phase (1996-1998) began with the evaluating of SOEs regarding their importance to the national economy and their size for the equitization and privatization followed by an execution of the first legal framework. A new feature of this period is that strategic SOEs also were subjects to equitization. The State retained one third of the shares while the remaining share were sold to SOEs managers and employees (up to 41 per cent) and outsiders (up to 26 per cent). Opposite to expectations, only 25 SOEs were equitized in this period (Nguyen, 2008).



A faster pace of equitization was reported during the third phase (1998-2002) with 845 SOE equitized. This is partially because the State allowed numerous SOEs to be equitized. Moreover, worker compensation and re-training could be solved through an establishment of a Fund for equitization implementation (*ibid.*)

The fourth stage (2003-2006) has witnessed the equitization of 2,649 SOEs. One reason for this could lie in the decentralization of the authority for equitizing SOEs to ministries, local government and the general corporation. Moreover, a numerous non-strategic SOEs were liquidated. Additionally, a ratio of a company's share owned by foreign individuals or organisations increased to 30%. Furthermore, the application of market evaluation enabled equitized SOEs to reduce debt after equitization (*ibid.*)

The fifth stage (2007-present) has witnessed a slow speed of equitization, with only 391 SOEs equitized. One reason for this is that most SOEs are diversified business groups, which caused difficulties for the evaluating process before equitization. Another explanation could lie in conservative thoughts concerning losing the leading role of SOEs that highly related to the maintenance of "a socialist market-oriented economy".

Aside from SOEs, Vietnamese companies are operating under the Enterprise Law 2005. A joint-stock company consists of four government bodies, namely the shareholders' meeting, the board of management, the director and the board of supervisors. The Board of Management, elected by the shareholders' meeting, represents shareholders to deal with managerial matters while the Board of Directors, promoted by the Board of Management, is responsible for day-to-day operations. Board of Supervisions is responsible for supervising the activities of the Board of Management and the Board of Directors in order to report directly to the shareholders' meeting.

#### *2.3.2.3 The foreign relations*

North Vietnam balanced international relations with the Soviet Union and China during its civil war (1954-1975). Vietnam-China relations significantly deteriorated because of the war in 1978 whereas relations with the Soviet Union and its allies in the Council for Mutual Economic Assistance were closely maintained. The Vietnam economy considerably relied on economic and military aid from the Soviet Union and its allies

through the 1980s until the breakup of the Soviet Union (Global Investment and Business Center, 2009).

Vietnam has gradually re-established international relations since 1989 when it withdrew its troops from Cambodia. Paris Agreements in 1991 enabled Vietnam to establish diplomatic and economic relations with the Association of Southeast Asian Nations (ASEAN) and with most of the countries of Western Europe and Northeast Asia. In the same year, Vietnam and China re-established its full diplomatic ties with joint effort in demarcation of their land and sea borders, trade expansion, investment, and political relations (*ibid.*)

Vietnam has considerably gain recognition through growing its global economic and political relations in the past decade. Following the lifting of the American veto on multilateral loans to the country, Vietnam become a member of the World Bank, the International Monetary Fund, And the Asian Development Bank. Coupling with expanding trade relations with its East Asian, Western European and North American countries, Vietnam joined ASEAN in July 1995, and the Asia-Pacific Economic Cooperation forum (APEC) in 1998. In 1994, the United States ended trade embargo against Vietnam since 1964 to North Vietnam and 1975 to the whole country. This is considered a starting point for trade increase between two countries. Vietnam became an official member of the World Trade Organisation in 2007 (*ibid.*).

#### *2.3.2.4 An activation of the Stock Exchange in Vietnam*

The Stock Exchange in Vietnam was activated in 2000 with an inauguration of Ho Chi Minh Stock Exchange (HoSE), which followed by Hanoi Securities Trading Centre (HASTC) in 2005. Larger companies are listed on HoSE while small and medium size companies are listed on HASTC. Even though the Stock Exchange first was considered a solution for equitized SOEs to enhance their transparency, improve accountability of their management and liquidity of their shares, it was operating with 30 listed companies of which 27 was equitized SOEs until June 2005 (WB, 2006).

According to Decree No.58/ND-CP on the 20<sup>th</sup>, July 2012, the registered charter capital of listed companies on HoSE requires four time higher than that of listed companies on HSTC (5.34 million USD compared with 1.33 million USD). Foreign investors can hold

up to 30% of a commercial bank's shares and 49% of a company's shares in non-financial sectors. On 31<sup>th</sup> March 2013, the number of listed company on HoSE was 309<sup>2</sup> of which the State retains its shares in 181 companies (75 out of 181 are SOEs)

### *2.3.2.5 Accounting development in Vietnam*

Before the economic reform, a strong state bureaucracy control-oriented accounting system was functioning to ensure achievement of the nationally centralised budgetary targets. The enterprise only took responsibility for achievement of production targets regarding quantity, but not for efficient use of economic resources. Moreover, the enterprise had very little autonomy in re-locating their funds for other purposes instead of purposes specified in the plan (Phuong and Jacques, 2011; Phuong and Nguyen, 2012). In this sense, those enterprises did not run their business for profitability. The operations of these enterprises were described by Fforde and de Vylder (1996, p. 58) as follows:

“Capital resources were supplied by the State to SOEs in order to produce a certain product. These resources were essentially supplied free. Each unit was managed by a level of the state bureaucracy (a ministry, if centrally managed; a provincial or city department, if locally managed) that allocated labour to it. The unit was then given a regular production target, in quantity terms, and in order to meet this target it was provided with levels of current inputs calculated on the basis of simple arithmetic norms. These inputs were supplied directly to the unit by the state, and its output was also supplied directly to the state. The unit was there essentially to produce for the target, and with almost no freedom to choose either what it produced and who it produced for, the unit had little interest in either the value of what it produced or the real costs involved in doing so. It was also not allowed to seek out better supplier of its inputs. In this way, the planners maintained central control over resources and could hope to ensure that they went to priority areas”.

Accounting objectives were modified in 1995 when a new accounting system was introduced. The purpose of financial statement is “to provide useful economic and financial information for evaluating and predicting the financial performance position of the enterprise. Financial information is also useful to owners, managers, investors, and creditors in decision-making” (Phuong and Jacques, 2011, pp. 711-712). This coupled with the emergence of new accounting concepts (e.g. assets, income, revenue and expenses), the modification of valuation principles and financial statements. Vietnam Accounting Standards (VAS) were developed from 2001 to 2006, which resulted in the

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<sup>2</sup> The data of the study started to collect in April, 2013 and an SOE refer to a company that the State holds more than 50% of its shares

issuance of 26 VAS. While being largely aligned with International Accounting Standards and International Financial Reporting Standard, VAS reflects national particularities in the transformational process. In practice, Enterprise Accounting Systems issued by Ministry of Finance provide guidelines for financial accounting for organisations including in respect of application of accounts to various economic transactions and preparations of financial statements. Financial accounting systems still emphasize the needs of the State rather than that of other stakeholders (e.g. taxation) (Huynh *et al.*, 2012; Phuong and Nguyen, 2012).

#### 2.3.2.6 General characteristics of the Vietnam's economy

Vietnam has achieved significant economic developments as a result of the economic reform. Firstly, the country's GDP has been impressively growing from 6.29 billion USD to 186.2 billion USD in 1989 and 2014 respectively. GDP's annual growth (see Table 2.2) achieved an average<sup>3</sup> of over 8.5% from 1991 to 2000, over 6.6% from 2001 to 2010 and over 5.7% from 2011 to 2014. In 2009, Vietnam, one of the world's poorest countries in the 1980s, entered the group of lower middle-income countries (Berliner *et al.*, 2013).

The economy's structure has been gradually changing with an increasing contribution of industry and service sectors in the GDP composition. Although more than 50% of the labour force is working in agriculture, the contribution of the service sector has been more than twice that of the agriculture sector (42.7% compared with 19.8%) and 5% higher than that of the industry sector during the last fifteen years (2000-2014) (see Table 2.3). Regarding the industry sector, manufacturing contributes around 80% to the industrial value while mining accounts for the remainder (GSO, 2014).

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<sup>3</sup> An average of GDP's annual growth is calculated from Table 2.2

<b>Year</b>	<b>GDP (current billion USD)</b>	<b>GDP growth (annual %)</b>
1985	14.09	3.80
1986	26.33	2.78
1987	36.65	3.58
1988	25.42	5.13
1989	6.29	7.3
1990	6.47	5.1
1991	9.61	5.9
1992	9.86	8.64
1993	13.18	8.07
1994	16.28	8.83
1995	20.73	9.54
1996	24.65	9.34
1997	26.84	8.15
1998	27.20	5.76
1999	28.68	4.77
2000	33.64	6.78
2001	35.29	6.19
2002	37.94	6.32
2003	42.71	6.89
2004	49.42	7.53
2005	57.63	7.54
2006	66.37	6.97
2007	77.41	7.12
2008	99.13	5.66
2009	106.01	5.39
2010	115.93	6.42
2011	135.53	6.24
2012	155.82	5.24
2013	171.22	5.42
2014	186.20	5.98

Table 2.2: GDP and GDP growth from 1985-2014 (Source:WB, 2015)

<b>Year</b>	<b>Agriculture (%)</b>	<b>Industry (%)</b>	<b>Service (%)</b>
1985	40.17	27.35	32.47
1986	38.06	28.88	33.05
1987	40.55	28.36	31.08
1988	46.29	23.96	29.74
1989	42.06	22.93	34.99
1990	38.73	22.67	38.58
1991	40.48	23.79	35.71
1992	33.93	27.26	38.79
1993	29.86	28.90	41.22
1994	27.42	28.86	43.70
1995	27.18	28.75	44.06
1996	27.75	29.73	42.51
1997	25.77	32.07	42.15
1998	25.77	32.49	41.72
1999	25.43	34.49	40.07
2000	22.73	34.19	43.06
2001	21.52	35.45	43.01
2002	21.27	35.69	43.02
2003	20.87	36.67	42.45
2004	20.04	37.44	42.50
2005	19.29	38.13	42.56
2006	18.72	38.58	42.68
2007	18.65	38.51	42.83
2008	20.41	37.07	42.50
2009	19.16	37.38	43.44
2010	18.89	38.22	42.87
2011	20.07	37.89	42.02
2012	19.66	38.62	41.70
2013	18.38	38.30	43.31
2014	18.11	38.50	43.38

Table 2.3: GDP composition from 1985-2014 (Source: WB, 2015)

Regarding international trade, Vietnam has experienced a continuous increase in both export and import in the last decade with a deficit on balance of payment as shown in Table 2.4. The value of both export and import in 2012 tripled in 2005 (114,529.2 billion USD compared with 32,447.1 billion USD and 113,780.4 billion USD compared with 36,761.1 billion USD respectively). Raw materials (e.g. crude oil, coal, rice, coffee, and rubber) and labour-intensive products (e.g. garments and footwear) accounted around 70% export value as shown in Table 2.5.

Unit: Million USD

<b>Year</b>	<b>Export</b>	<b>Import</b>	<b>Balance</b>
2005	32,447.1	36,761.1	-4,314
2006	39,826.2	44,891.1	-5,064.9
2007	48,561.4	62,764.7	-14,203.3
2008	62,658.1	80,713.8	-18,028.7
2009	57,096.3	69,949.8	-12,852.5
2010	72,236.7	84,838.6	-12,601.9
2011	96,905.7	106,749.8	-9,844.1
2012	114,529.2	113,780.4	748
2013	132,032.9	132,032.6	0.3
2014	150,186.5	148,048.7	2,137.8

Table 2.4: Export-Import from 2005 to 2014 (GSO, 2014)

<b>Total</b>	<b>2005</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Primary products</b>	<b>49.7</b>	<b>44.2</b>	<b>39.0</b>	<b>34.8</b>	<b>34.8</b>	<b>30.7</b>
Food, foodstuff and live animals	19.5	19.4	20.2	18.6	18.0	16.4
Beverage and tobacco	0.5	0.3	0.4	0.4	0.4	0.4
Crude materials, inedible, except fuels	3.8	4.0	3.4	4.7	4.9	3.7
Mineral fuels, lubricants and related materials	25.8	20.3	14.9	11.0	11.3	9.9
Animal and vegetable oil, fat and wax	0.1	0.2	0.1	0.1	0.2	0.3
<b>Manufactured products</b>	<b>50.3</b>	<b>55.2</b>	<b>59.6</b>	<b>65.1</b>	<b>65.1</b>	<b>69.2</b>
Chemical and related products	1.6	2.3	2.2	2.6	3.0	3.3
Manufactured goods classified chiefly by materials	6.7	10.2	9.2	11.7	11.2	10.7
Machinery, transports and equipment	9.7	11.7	13.0	15.9	19.4	26.8
Miscellaneous manufactured articles	32.3	31.0	35.2	34.8	31.5	28.4
<b>Other products</b>	<b>0.0</b>	<b>0.6</b>	<b>1.4</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>

Table 2.5: Structure of exports of goods by Standard International Trade Classification (GSO, 2014)

As shown in Table 2.6, the registered capital increased sharply from 6.8 billion USD in 2005 to 21.3 billion USD in 2007 and to more than 71.7 billion USD in 2008. Despite the effects of the global recession in 2009, the FDI registered to Vietnam still achieved 23.1 billion USD in 2009 and 19.8 billion USD in 2010. The implemented capital was maintained between 10 and 11 billion USD from 2008 to 2012.

Unit: Billion USD

Year	Registered capital	Implemented capital	%
2005	6.8	3.3	48.53
2006	12	4.1	34.17
2007	21.3	8	37.56
2008	71.7	11.5	16.04
2009	23.1	10	43.29
2010	19.8	11	55.56
2011	15.6	11	70.51
2012	16.3	10	61.35
2013	22.35	11.5	51.45
2014	21.92	12.5	57.03

Table 2.6: FDI from 2005 to 2014 (GSO, 2014; Investment, 2015)

One striking characteristic of Vietnam's economy is the leading role of SOEs in a multiple ownership economy. In Vietnam, an enterprise is classified as an SOE if the State owns more than 50% of its charter capital. SOEs consist of three types: corporations, limited companies and joint-stock companies controlled by the State by retaining more than 50% of the shares (GSO, 2013). Noticeably, coupling with equitizing SOEs, SOEs are corporatized. The corporation was fundamentally based on the *chaebol* model in South Korea and Western corporations through grouping at least five SOEs whose minimum capital were 46 million USD (based on the exchange rate of 1994). These corporations monopolize all key industries such as electricity, petroleum, mining, insurance, textile, constructions, estate and housing development, and post and telecommunications. The government's rationale for corporatization is to play a leading role through SOEs in the process of industrializing and modernizing economy through economies of scales and improvement of administrative management by reducing a number of SOEs. A reduction of discrimination against private business in terms of legal regulations and public opinions has resulted in a fast growing number of established private enterprises. Most of them are small regarding the charter capital. The economy has also witnessed the establishment of numerous foreign investment enterprises as a result of an increase in FDI inflow over the last decade (Lan, 2009).

In 2012, the number of SOEs was 3,239 (1,792 and 1,447 managed by central and local governments respectively) accounted for only 0.93% of the total enterprises while 334,562 non-SOEs and 8,976 foreign investment enterprises accounted for 96.48% and 2.59% of the total enterprises respectively. The number of non-SOEs that the State still



retains less than 50% of the share was 1761 and the number of private joint-stock companies was 73,261. A modest number of SOEs are known as large business groups. Their annual average capital was much higher than that of other types of enterprises: approximate 32.3% compared with 6.75%, 24.59% and 16.93 % of the joint-stock company having state capital, the private joint-stock company, and the foreign investment enterprise respectively (GSO, 2014).

As shown in Table 2.7, it appears that SOEs did not achieve economic efficiency as high as non-SOEs because SOEs' contributions to GDP are relatively lower than SOEs' capitals from 2005 to 2014 (except 2008). In 2005, for instance, SOEs' contribution to GDP was only 38.40% while SOEs' capital was 47.1%. However, the domestic private sector contributed 45.61% to GDP with only 38% capital.

Unit: percentage

Year	SOEs		Non-SOEs		FDI	
	Capital	GDP	Capital	GDP	Capital	GDP
2005	47.1	38.40	38.0	45.61	14.9	15.16
2006	45.7	37.39	38.1	45.63	16.2	16.98
2007	37.2	35.93	38.5	46.11	24.3	17.96
2008	33.9	35.54	35.2	46.03	30.9	18.43
2009	40.5	35.14	33.9	46.53	25.6	18.33
2010	38.1	33.46	36.1	48.85	25.8	17.69
2011	37.0	32.68	38.5	49.27	24.5	18.05
2012	40.3	32.57	38.1	49.35	21.6	18.09
2013	40.4	32.20	37.7	48.25	21.9	19.55
2014	39.9	31.87	38.4	48.04	21.7	20.09

Table 2.7: Composition of annual average capital and GPD contribution by ownership type (GSO, 2010; GSO, 2014)

A leading role of SOEs leads to intertwined relations of authority within Vietnamese SOEs: “Party, trade union and management – all in one piece” (Lan, 2009, p. 123). This originates from a leadership role of the party to the political impetus. Party Committee presents in all SOEs, even being retained in joint-stock companies having state capital or privatize SOEs and important personnel decisions are made by this Committee. As such, Chairmans of Board of Management, General Directors, and Directors must be Party members and most managerial positions are held by Party members. Thus, although Party Committee that does not involve in managerial decisions in theory exercises its power in practice (Lan, 2009).

In terms of legal framework, the government's effort in establishing market institutions and building a new legal system has been reflected in the introduction of new laws and in modification, and replacement of old laws (e.g. amendment of 1997 Commercial Codes in 2005, introduction of the FDI Law in 2000 and of the Competition Law in 2005, replacement of the 1993 Bankruptcy Law in 2005). Moreover, 27 new laws were approved in order to fulfil WTO requirements in 2007. Despite these efforts, Vietnam's current legal framework is characterised by incompleteness, lack of codification and weak enforcement. Various business areas are not covered by laws and ill-definition of numerous terms and concepts in laws are opened to different interpretations. This caused difficulties in putting laws into practice and weak law enforcement. Consequently, going to the court tends to be the last choice of the enterprise because of "problems" related to the court (Lan, 2009).

## **2.4 Vietnamese cultural traits**

### ***2.4.1 Connections between Chinese culture and Vietnamese culture***

Chinese colonisation hugely impacts various Vietnamese cultural aspects. This influence was evaluated by Trong Kim (2005, p.30) as follows:

"It would be difficult to make clear distinctions between Vietnamese and Chinese. Vietnamese was only a small ethnic group compared with a large Chinese population who had a well-known civilisation since the ancient time. In particular, this similarity is hugely rooted in impacts of Confucianism, Daoism and Buddhism on various aspects of life. Although having numerous similarities with Chinese, the Vietnamese people still maintain their spirit of national independence".

Sharing the same opinions, Woodside (1971, p. 7) points out that:

"... Over this span of nine hundred years, the Vietnamese people received a comprehensive initiation into scholarship, political theories, familial organisation patterns, bureaucratic practices, and even the religious orientations of Chinese culture... Furthermore, Chinese rule gave the Vietnamese people – through the imposition of Chinese social, bureaucratic, and familial forms – a cohesion that guaranteed their permanence, on the eastern edge of a sub-continent where impermanent states were the rule rather than the exception."

### ***2.5.2 Confucian values***

The similarities between two countries might be explained by the significant impact of Confucianism in Vietnam. According to Lan (2009) fundamental beliefs and values are considerably rooted in Confucian teachings characterised by the notion of social order and

hierarchy. Firstly, “filial piety”, the most important concept of Confucianism, “defines roles, and actions and values that go with roles, and accordingly defines a person’s duty to a role” (Hamilton, 1984, p. 411). Filial piety is described in detail as follows:

“Live up to the responsibilities of the roles of life. Obedience to others – a son obeying a parent or a wife her husband – is to occur in the absence of commands and even in the absence of someone to command. Sons remain sons, and wives remains wives, even after their fathers and husbands die, just as the ruler always remains the Son of Heaven. Obedience is simply a part of a role and roles make up the whole. Everyone’s obedience, everyone practice xiao, represents a harmony of wills. In principle, then, the act of commanding another is not an act of personal will, but rather an act of duty...Emperors have a duty to govern their subjects; parents have a duty to educate their children; men have the duty to admonish their wives; and older brothers have the duty to correct their younger brothers” (p.415)

Within an organisation, “[c]onfucianism bases the subordination of the official to the ruler, of the lower to the higher-ranking officials, and particularly of the subjects to the officials and the rulers, on the cardinal virtues of filial piety” (Hamilton, 1984, p. 403).

Another aspect of Confucianism reinforcing social order and hierarchy lies in the high respect for education. “Sĩ” (scholars) were ranked first in the traditional social class structure: Sĩ-Nông-Công-Thương (Scholars-peasants-artisans-merchants). A main reason for this is that managerial promotion was based on the academic achievement. One main characteristic of Confucian education is to follow classical ideas and theories without questioning them. Thus, academic achievement only evaluates scholars’ ability to memorize. These aspects of Confucianism (e.g. educational style and attitude towards education) are hugely retains in Vietnamese society today (Lan, 2009).

### ***2.4.3 Importance of the family and village***

Two important aspects of social structure and relationships in Vietnam are the family and the village where most social contacts occur. The family is typically defined in terms of blood sharing. Family-related values are taught and reinforced from childhood to adulthood. Respect for the elderly is one ethical principle of Vietnamese people as a mixed product of Confucian and family values. This goes beyond the family setting to the workplace and in day-to-day interaction between younger and older people, even in cases of managerial promotion.

Difficult living conditions rooted in agricultural production tighten not only family members, but also villagers, to each other. Thus, the village is an important social unit

producing local social norms or customs that considerably constrain individual behaviours, even more than legal laws (Lan, 2009). Being embedded in agricultural life, this is still valid when the majority of Vietnamese people live in rural and mountainous areas today (Pham, 2005; Lan, 2009). Vietnamese cultural characteristics are described by Jamieson (1993, pp. 4-5) as follows:

“The Red River delta has...been one of the most densely polluted and least safe regions in the world. In an uncertain and dangerous environment, hunger and social unrest have been constant threats. As a result, the local culture has emphasised the subordination of the individual to collective discipline of family and village. Both the family and the village have been relatively closed, corporate entities, self-reliant, and responsible for the action of their individual members.”

Connections of family members and villagers constitute a fundamental feature of collectivist culture. An individual interest should be tightly aligned to interests of the society. If people fight for their own interests, they will be viewed as selfish and egotistical. Thus, people attempt to maintain harmony and consensus as well as avoid conflicts with other members of their communities in most aspects of life, which used to define the success of a person (Pham, 2005).

Saving face is another aspect of Vietnamese culture. People typically fear bad public opinions about themselves and their families (Pham, 2005). While this notion could be understood in a collectivist culture, this is also derived from the notion of covering up for the family members and relatives embedded in the minds of Vietnamese people. In this sense, Vietnamese people tend to hide “bad things” of their families because they are afraid of negative public opinions as per the Vietnamese proverb “Tốt phô ra, xấu xa đậy lại”, translating as “show off good things, but hide bad things” (Pham, 2005; Lan, 2009) .

## **2.5 Managerial changes in Vietnamese organisations**

Various aspects of organisational management have been changing since the economic reform (Le Chien and Truong, 2005; Ying *et al.*, 2008). Focusing on practices of HRM, Ying *et al.* (2008) conducted a case study of 32 enterprises covering different types of ownership in Vietnam. Their findings indicate the adoption of new HRM practices (e.g. individual wage bargaining, individual performance, or cooperative culture regarding the labour-management relationship). Moreover, those practices are considerably influenced by the form of ownership. SOEs tend to follow the traditional HRM practices while other

types of ownership (e.g. privately owned organisations and joint ventures) tend to adopt new HRM practices to a greater extent than they did before. Additionally, Hanoi-located organisations appear to have a lower rate of adoption of new HRM practices than Ho Chi Minh-located enterprises.

Concerning Western management accounting practices in Vietnam, Doan Ngoc Phi Anh *et al.* (2011) conducted a survey of 181 companies covering different types of ownership including 48 pure SOEs, 99 joint stock enterprises and 34 joint ventures. These companies differ in size (71 companies with more than 251 full-time employees, 60 companies recruiting between 101 and 250 full-time employees and 50 companies recruiting between 50 and 100 full-time employees). Their findings indicates that Vietnamese enterprises tend to adopt traditional Western MAPs to a greater extent than contemporary ones. Compared to other types of ownership, SOEs exhibited a lower extent of adoption in both types of practices (see Table 2.8).

Traditional MAPs	Contemporary MAPs
<ol style="list-style-type: none"> <li>1. Sales budgeting</li> <li>2. Profits budgeting/planning</li> <li>3. Budgeting for controlling cost (direct material, labour, overhead)</li> <li>4. Budget variance analysis</li> <li>5. Production budgeting</li> <li>6. Cash budgeting</li> <li>7. Product profitability analysis</li> <li>8. Standard costs and variance analysis</li> <li>9. Absorption costing</li> <li>10. Budgeting for planning financial position</li> <li>11. Cost volume profit analysis</li> <li>12. Calculation and use of cost of capital</li> <li>13. Long range forecasting</li> <li>14. Responsibility accounting</li> <li>15. Divisional profit</li> <li>16. Capital budgeting (payback, ROI)</li> <li>17. Flexible budgeting</li> <li>18. Controllable profit</li> <li>19. Variable costing</li> <li>20. Transfer pricing</li> <li>21. Capital budgeting (NPV, IRR)</li> </ol>	<ol style="list-style-type: none"> <li>1. Just-in-time</li> <li>2. Total quality management</li> <li>3. Non-financial measures</li> <li>4. Activity-based budgeting</li> <li>5. Activity-based management</li> <li>6. Product-life cycle analysis</li> <li>7. Economic value added or residual income</li> <li>8. Value chain analysis</li> <li>9. Target costing</li> <li>10. Balanced scorecard</li> <li>11. Activity-based-costing</li> </ol>

Table 2.8: A list of Western MAPs adapted from Doan Ngoc Phi Anh *et al.* (2011)

## 2.6 Summary

The chapter has presented an overview of business environment in Vietnam, a developing country, strategically located in South-East Asia, providing contextual insights for the analysis. The country has a long history of fighting against outside invaders from its ancient to modern times, battles for independence and reunion of the country. Outstanding achievement was brought about by an application of the centrally planned economic model in war time. However, limitations of this model caused challenges for economic development, which led to the economic reform in 1986. Since this turning point, Vietnam has been transformed to a more market-oriented economy with the co-existence of multiple ownership enterprises. An improvement of foreign relations enables Vietnam to gradually integrate in the global economy. This coupled with a number of achievements in terms of GDP growth, economic structure, FDI inflows and the like.

A striking feature of the market-oriented economy in Vietnam lies in its “socialist” aspects. This is translated into a leading role of SOEs operating in various economic sectors. An equitization programme introduced to SOEs, a back-bone of the economy, in 1992 required numerous changes in management practices (e.g. MAPs or HRM practices) in hopes of enhancing SOEs’ economic performance. These would be challenging for these enterprises, especially when market institutions are underdeveloped and the legal framework is characterised by incompleteness, lack of codification and weak enforcement.

Regarding cultural traits of the country, Vietnam fundamentally shares cultural characteristics with its neighbour, China. Values of Confucianism lay the basis for hierarchy-oriented management. The notion of social order is tightened by the importance of family and village in the life of the Vietnamese. People value harmony, consensus and non-conflict between community members. People attempt to build and maintain relationships with other people, to save face and avoid bad public opinions. Respect for the elderly is considered an important ethical principle.

## Chapter 3: Literature Review

This chapter aims to clarify the term PMASs through comparing three prevalent terms that have been used in the literature of organisational control: PMASs, MCSs and PMESs (section 3.1). This is followed by discussions on five dominant practices of PMASs namely the adoption of NFPMs, decentralisation of decision-making, participation in setting targets for organisational performance, interactive use of NFPMs, and objectivity of performance evaluation and rewards (section 3.2). Then, discussions on contingency theory and related issues are presented (section 3.3) followed by a chapter summary (section 3.4)

### 3.1 The Meaning of performance management systems

The term “performance management” in management accounting was first proposed by Otley (1999) in order to “go beyond the measurement of performance to the management of performance” (p.364). Subsequently, Ferreira and Otley (2009, p.264) broadly defined the term PMASs as follows:

“...the evolving formal and informal mechanisms, processes, systems, and networks used by organisations for conveying the key objectives and goals elicited by management, for assisting the strategic process and on-going management through analysis, planning, measurement, control, rewarding and broadly managing performance and for supporting and facilitating organisational learning and change.”

Their intention is to include “all aspect of organisational control, including those included under the heading of management control systems” (Ferreira and Otley, 2009, p. 264). Clearly, “performance management” links to “management control” and “performance measurement”. This suggests that the term PMASs can be better understood and appreciated in relation to MCSs and PMESs.

#### 3.1.1 MCSs and PMASs

The central problem of MCSs is how can an organisation ensures that its members act in organisational interests. In other words, MCSs is about how to motivate managers and ordinary employees to do the best for their organisations (Otley, 2003; Merchant and Van de Ven, 2007; Malmi and Brown, 2008). Merchant and Van de Ven (2007) distinguish between the system for ensuring validity of organisational strategy and that of controlling human behaviours via actions, personnel, culture and results control. Actions control

refers to controlling employees' behaviours by specific and detailed instructions about exactly what should be done such as direct supervision rules, standard operating procedures and business policies. Personnel controls build on employees' natural tendencies to control and/or motivate themselves. Culture controls are designed to encourage mutual monitoring, a powerful form of group pressure on individuals who deviate from norm and values. Results control refers to the type of control that senior managers exercise in relation to final outcomes rather than the means to achieve such outcomes. To be effective, results control comprises four elements: defining performance dimensions, measuring performance, setting performance targets and providing rewards.

In the same vein, Malmi and Brown (2008) define MCSs as a control package based on distinctions between decision-support systems and MCSs. As such, MCSs refer to "all the devices and systems managers use to ensure that the behaviours and decisions of their employees are consistent with the organisation's objectives and strategies." (ibid. -p.290-291). The authors point out five sub-control component namely planning, cybernetic controls, reward and compensation, administrative controls and cultural controls as depicted in Figure 3.1. Planning is concerned with ex-ante control. Both short-term and long-term goals are set for the entire organisation and its functional areas in order to direct efforts and behaviours of organisational members. Goal alignment across functional areas needs to be given attention to minimize conflicts of interest among individuals and groups within the organisation. Cybernetic control involves the process of performance measures quantification, setting targets of performance measures, comparisons between outcomes and pre-set targets, variance analysis and behavioural modification. A system of reward and compensation attached to performance achievement directs effort direction, effort duration, and effort intensity of managers and ordinary employees to achieve pre-set targets. Administrative control systems direct behaviours of organisational members through governance structure, organisational structure, procedures and policies. Cultural controls influence thoughts and actions of people within the organisation through sharing sets of values, beliefs or social norms. Each control element does not isolate from one another. Rather these practices complement or even substitute for each other in some circumstances.



<b>Cultural Controls</b>						
Clans		Values			Symbols	
<b>Planning</b>		<b>Cybernetic Controls</b>				<b>Reward and Compensation</b>
Long range planning	Action planning	Budgets	Financial Measurement Systems	Non Financial Measurement Systems	Hybrid Measurement Systems	
<b>Administrative Controls</b>						
Governance Structure		Organisation Structure			Policies and Procedures	

Figure 3. 1: A package of MCSs, taken from Malmi and Brown (2008, p. 299)

Concerning distinctions between “control system” and “control package”, Grabner and Moers (2013, p. 408) argue that control practices<sup>4</sup> as a package “represents the complete set of control practices in place, regardless of whether the control practices are interdependent and/or the design choices take interdependencies into account. This implies that the control package can be composed of a set of control systems and/or of a set of independent control practices addressing unrelated control problems”. In contrast, the term “system” emphasises internal consistency between various practices of control. These practices “form a system if the control practices are interdependent and the design choices take these interdependencies into account” and “[i]nterdependence implies that the value of one control practice depends on the use of another control practice, and vice versa” (ibid.-p 408). Control practices might complement or substitute each other. Therefore, whether a group of control practices might form “a system” or “a package” depends on their interdependence, which might vary from one context to another.

The question of “management control and performance management: whence and wither?” was asked by Otley (2003) to drive his 35 year-personal account of involvement with management control research. The author points out that performance management still deals with the problem of goal congruence as management control did, but in a new context. Thus, the use of the term “performance management” reflects changes in the field of management control over time. In the early 1970s, the foundation for MCS design

<sup>4</sup>Grabner and Moers (2013) used the term “management control practices” instead of “control practices”

and use was provided by Anthony (1965) who defined management control as “the process by which managers ensure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation’s objectives” (p.17). As a result, the MCS largely relied on accounting controls for planning, monitoring of activities, measuring performance and integrative mechanisms. Moreover, management control was separated from strategic control and operational control. If this traditional MCS enabled the organisation to succeed in the past, the system is inadequate for maintaining organisational competitiveness in the fast changing environment that has manifested since the late 1980s (Johnson and Kaplan, 1987). Organisations have come to realise the importance of their short-term performances in relation to their long-term performances. This organisational concern results in the need for strategic management that requires connection between management, strategic and operational controls. For this reason, organisational strategy started to be explicitly used as a variable in MCS research (Langfield-Smith, 1997).

MCSs, “the formal, information-based routines and procedures managers use to maintain or alter patterns in organisational activities”, impact the organisational strategy at four levels (Simons, 1995, p. 5). The first level refers to belief systems that intrinsically motivate managers and workers to make their commitments to act or behave based on sharing values, purposes and directions of the organisation. The second level refers to boundary systems or warning control systems that draw lines between what should be done and what should not be done when senior managers take risks or seek opportunities. The third level refers to diagnostic control systems that are designed to implement formulated business strategy. These systems measure outputs and bring the organisation back on track through corrective actions taken when some negative deviations are detected from comparisons between outputs and predetermined standards. The fourth level refers to interactive control systems that help the organisation to successfully compete in competitive environments. Simons (1995) argues that the organisation needs to have interactive control systems to deal with strategic uncertainties. Senior managers need to use information from diagnostic control systems to adjust intended strategy during the process of strategy implementation.

The importance of organisational objectives is emphasized by Otley (1980) as a necessary condition to ensure the effectiveness of control systems. The business strategy itself

should be a control element rather than a contingent factor (Ferreira and Otley, 2009). In this sense, PMASs are considered a new form of MCSs when organisational vision and missions, key success factors (KFSs) and identified business strategies become a starting point for designing other control elements. In this way, various sub-control systems complement one another to create their internal cohesion and consistency to make organisational performance manageable (Ferreira and Otley, 2009). The interrelationship between PMASs and MCSs is depicted in Figure 3.2:

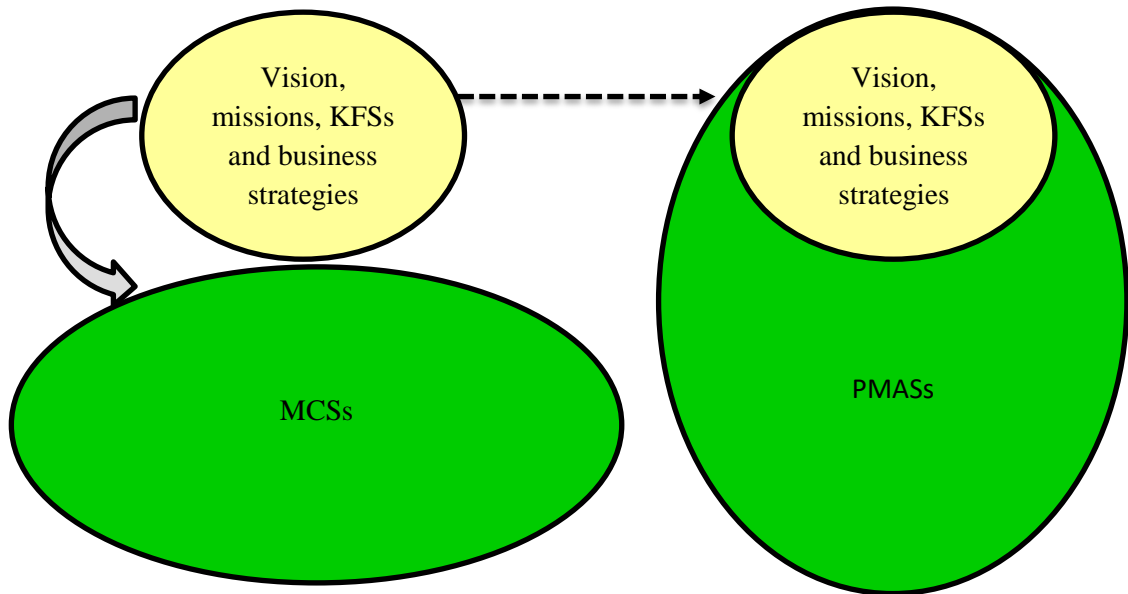


Figure 3.2: The interrelationship between PMASs and MCSs

### 3.1.2 PMASs and Performance Measurement Systems (PMESs)

PMESs are defined from various perspectives (Franco-Santos *et al.*, 2007; Franco-Santos *et al.*, 2012). Accounting scholars define PMESs as a set of monetary metrics used to measure organisational performance. PMESs enable the organisation to summarize and aggregate all business activities into financial numbers in terms of cost, revenues and profit (Emmanuel and Otley, 1985). PMESs, from the operational perspective, are defined as “...a set of metrics used to quantify both efficiency and effectiveness of actions”. Operational performance is quantified, but does not require to be expressed through monetary forms (Neely *et al.*, 1995). Scholars in the field of strategic management define PMESs as a set of measures that reflects organisational strategies (Simons, 2000; Hall, 2008). The metrics cascade from the strategy. Therefore, adjustment in strategies leads to changes in PMESs (Kaplan and Norton, 1996c). For Franco-Santos *et al.* (2007), the fundamental role of PMESs is to measure performance. In this sense, PMESs serve as a

basis to monitor progression of organisational performance towards pre-set performance targets. Therefore, PMESs is made up by two necessary elements “performance measures” and “supporting infrastructure”. In other words, the organisation obtains PMESs when a set of metrics are used to measure its performance with a supporting infrastructure ranging from very simplistic manual methods to very sophisticated information systems for recording performance data.

In addition to its basic role, the PMES can play various roles in the organisation, which might vary from one organisation to another. Henri (2006) points out that PMESs play four roles in the organisation. Firstly, PMESs serve as monitoring device to keep organisational performance on track by making necessary corrections when feedback is provided about deviations between actual and pre-set quantitative performance. Gathered information is mainly used for reporting and external disclosure. Secondly, legitimization concerns the usage of PMESs to enhance the legitimacy of organisational activities, justify and validate current and future actions, assert self-interest and exercise power. Thirdly, attention focusing attempts to give important cues about problems that the organisation should look into at different levels. Fourthly, strategic decision-making focuses on use of performance measures as a problem-solving tool that supports top management to manage strategic issues through cause-effect analyses between internal process and objectives achievement.

According to Franco-Santos *et al.* (2007), PMESs can be used for the purpose of communication with internal and external stakeholders about different aspects of organisations. Moreover, the systems can be used to influence behaviours when the metrics are used to evaluate and rewards organisational members. Furthermore, PMESs can encourage learning and improvement through single-loop and double-loop feedback. Additionally, PMESs involve strategic management such as strategy formulation, strategy implementation and strategy adjustment. These imply that PMESs are not synonymous to PMASs. Rather, PMESs can be seen as a part of PMASs. For Amaratunga and Baldry (2002), the PMAS involves using results of PMESs to aid towards strategic development and learning. The authors articulate the relationship between PMESs and PMASs as follows:

“Measurement is not an end in itself, but a tool for more effective management. Results of performance measurement indicated what happened, not why it happened or what to do about it. (...). *Performance management concerns with the use of performance measurement information to effect positive change in organisational culture, systems, and processes by helping to set agreed-upon performance goals, allocating and prioritising resources, informing managers to either confirm or change current policy or program directions to meet those goals, and sharing results of performance in pursuing those goals*”(p.218).

Similarly, Folan and Browne (2005, p. 674) state that “performance measurement and performance management follow one another in an iterative process; management both precedes and follows measurement, and in doing so creates the context for its existence”. The relationship between PMESs and PMASs can be understood through Figure 3.3:

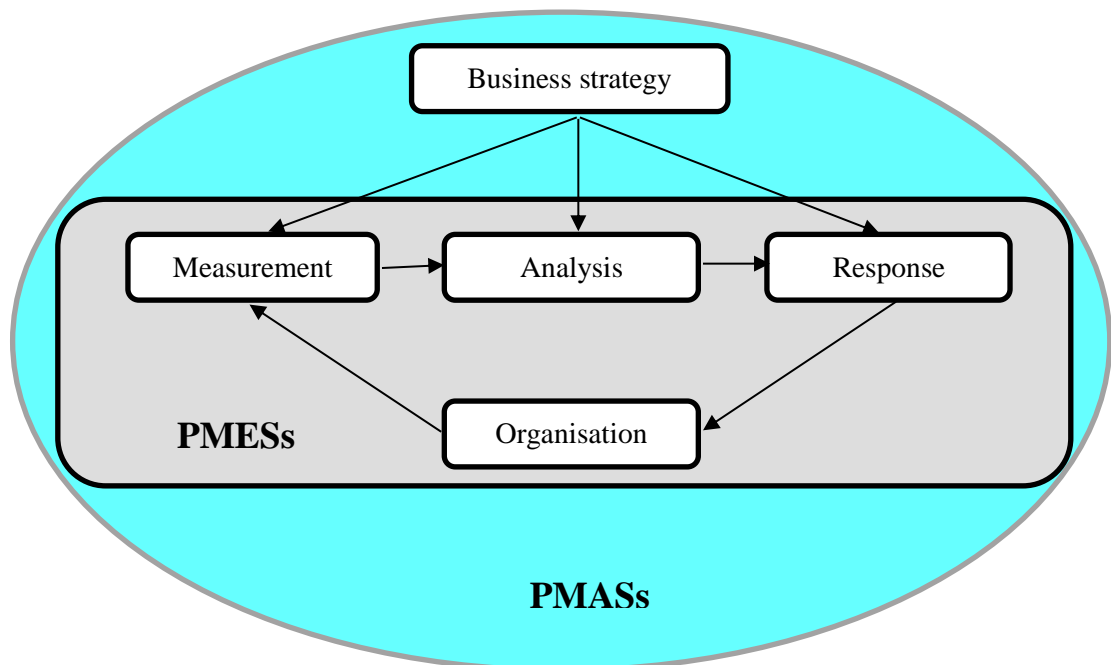


Figure 3.3: PMESs in relation to PMASs, adapted from Folan and Browne (2005, p. 674)

These aforementioned arguments emphasise the importance of the strategy in relation to PMESs to make organisational performance manageable. Supporting this idea, Franco-Santos *et al.* (2007) argue that strategic goals are not necessary conditions of PMESs. Strategic goals of the organisation might or might not be well-established and linked to its measures. The organisations might obtain a loose connection between operational and strategic goals. Performance measures may not be explicitly linked to strategy. Some organisations may turn PMESs into PMASs, while others might not. This implies that the

better the connection between PMESs and the strategy that can be built, the better the organisational performance can be managed

PMESs can be transformed into PMASs only when the strategy becomes a starting point for performance measures. Kaplan (2010), in his working paper, namely “Conceptual Foundations of the Balanced Scorecard”, argues that the strategy must be the fundamental foundation showing end-mean relationships on which the organisation design its PMESs. Similarly, Ferreira and Otley (2009) also view strategy as a basic element of PMASs. For this reason, all performance measures should support the chosen business strategy. The Balanced Scorecard (Figure 3.4) was proposed by Kaplan and Norton (1992, 1996b, 2001) in an attempt to help the organisation to transform its PMESs into PMASs.

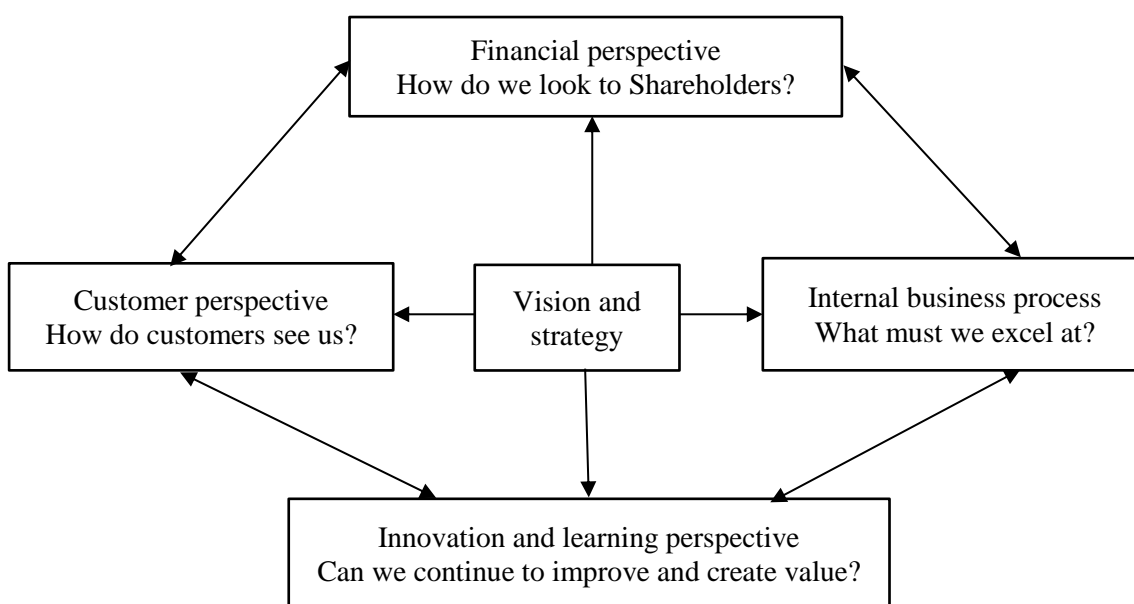


Figure 3.4: Links between performance measures and organisational objectives, adapted from (Kaplan and Norton, 1996c)

Alternative frameworks such as the French Tableau de Bord (Epstein and Manzoni, 1998) and the Performance Pyramid (Lynch and Cross, 1992; Kippenberger, 1996) share a fundamental similarity with BSC regarding the combination of FPMs and NFPMs. The Tableau de Bord (see figure 3.5), invented by a group of French engineers, “was described as being similar to a “dashboard” used by a “pilot” to guide organisations to their destinations” (Bessire and Baker, 2005, p. 650). “It does not give a major place to accounting-based information. Physical information is considered to be anticipatory and a better base for decision-making” across organisational hierarchies (Bessire and Baker, 2005, p. 651) The Performance Pyramid (see figure 3.6) “is a

hierarchical set of building blocks starting with “vision” at the top and ending with specific operating issues and individual performance measures at the bottom. It can be viewed from each of its three sides and provides relevant information to three main stakeholder groups: customers, shareholders and employees” (Kippenberger, 1996, p. 10).

The distinctiveness of the BSC first lies in the notion of balance driven by the four performance perspectives: “[t]he four perspectives of the scorecard permit a balance between short-term and long-term objectives, between desired outcomes and the performance drivers of those outcomes” (Kaplan and Norton, 1996c, p. 56). Further, Kaplan and Norton (1996a, p. 8) claim that NFPMs in the BSC measure aspects that are the drivers of future financial performance. Thus, this relationship between outcome measures and performance drivers might enable organisations to better predict and control their financial performance (Kaplan and Norton, 1992; Nørreklit, 2000). In this respect, the BSC can be seen in terms of a feed-forward control system (Kaplan and Norton, 1996b; de Haas and Kleingeld, 1999). The BSC also results ostensibly in alignment of personal goals, departmental and organisational strategy. This might help organisations to better solve problems related to strategy implementation (Simons, 1995; Kaplan and Norton, 1996a).

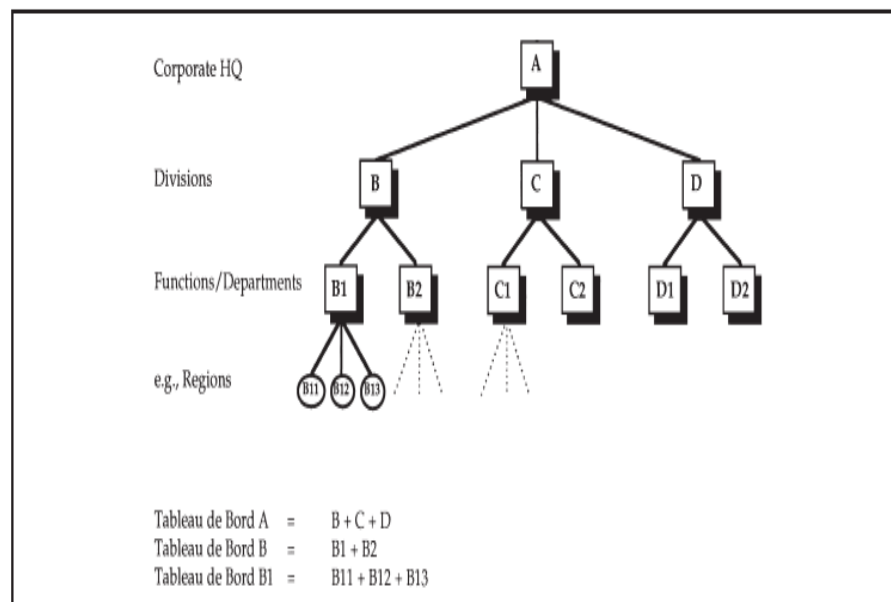


Figure 3.5: The French “Tableau de Bord” from Epstein and Manzoni (1998)

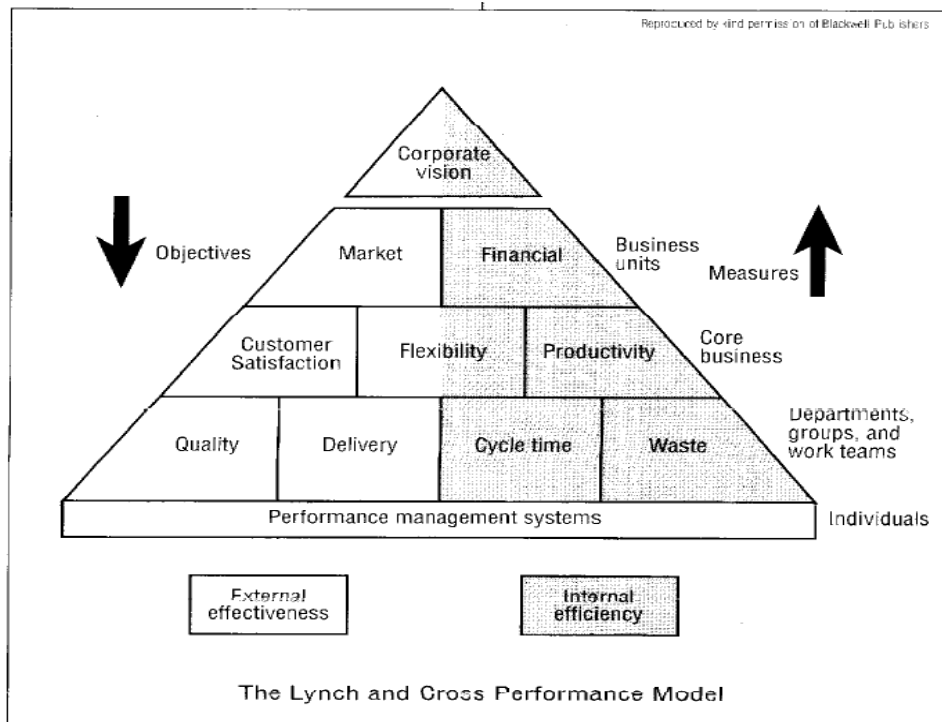


Figure 3.6: The Performance Pyramid taken from Kippenberger (1996)

At the same time, the BSC ostensibly presents a welcome addition to both theory and practice in a number of respects, including in some ways especially when compared with the “Tableau de Bord” that has been used for at least 50 years in France (Epstein and Manzoni, 1998; Bourguignon *et al.*, 2004). The BSC offers managers a more complete view of the organisation’s performance in a single document rather than the multiple documents applying in diverse ways to different sub-units suggested by the “Tableau de Bord”. Moreover, the concept of strategy differs between these two models. BSC explicitly uses Porter’s strategic model (1980; Porter, 1985) for building the four perspectives of performance measures (Bourguignon *et al.*, 2004). The concept of strategy in the “Tableau de Bord” relies on the managers’ subjectivity and the organisations’ environment. Importantly, the BSC suggest cascade of NFPMs from the organisational vision and strategy. Furthermore, the linkage from rewards to performance measurement is more strongly encouraged by the BSC than the “Tableau de Bord”. Therefore, the BSC, a supporting tool focused on strategic implementation, appears to outperform the “Tableau de Bord” that tends to be hierarchically



implemented across organisational levels to support local decision-making (see Bourguignon *et al.*, 2004, for further details).

The BSC has attracted interest from both researchers and practitioners since its introduction (e.g. Hoque and James, 2000; Malina and Selto, 2001; Ittner *et al.*, 2003a; Ittner *et al.*, 2003b; Davis and Albright, 2004). Simultaneously, its validity with respect to the cause-effect relationships was questioned by Nørreklit (2000). The author suggests further considerations concerning the assumption of causality among different performance perspectives. The BSC does not articulate the time dimension, a vital requirement for causal links, because causal performance measures must occur before the presumed effects on other performance measures (Nørreklit, 2000; De Vaus, 2001). Importantly, the time lags for one performance dimension having effects on other dimensions vary considerably. For example, improvement of the internal business processes might enhance customer satisfaction in a shorter time period when compared with efforts in improvement of organisational capacity to learn and grow. Therefore, enhancement of financial performances in the short-term or long-term relies on the relative investments of the organisation in different performance perspectives (Nørreklit, 2000). The further criticism one should acknowledge concerns of the relationships between performance measures from the different perspectives. If the BSC assumes that learning and growth lead to efficient internal business processes, then a high level of customer satisfaction, then good financial results, the relationship excluded the effects of price on customer satisfaction, which goes against what neo-classical economists would argue. Therefore, the relationships between the four perspectives appear to be interdependent.

The results from some studies on the impact of BSC implementation for organisational performance are contradictory. For instance, Ittner *et al.* (2003b) found that the extensive use of the BSC is negatively associated with ROA. However, positive associations between BSC implementation and organisational performance were evidenced in several studies either using self-reported measures of organisational performance or actual financial performance (e.g. Hoque and James, 2000; Davis and Albright, 2004). Employing a quasi-experimented approach and actual financial performance data, Davis and Albright (2004) reported that bank branches that implemented BSC outperformed those that did not. Similarly, Ittner *et al.* (2003b) found

that financial service firms using measurement diversity in a way consistent with the BSC achieved higher stock market returns than those that did not even where these firms had similar strategies and value drivers.

Those contradictions might lie in challenges of establishing associations between the four perspectives in the early stage of BSC implementation (Speckbacher *et al.*, 2003). According to Speckbacher *et al.* (2003), the BSC might be divided into three evolutionary phases. The first phase refers to a specific strategic PMES containing FPMs and strategic NFPMs grouped into perspectives. Current financial performance is inadequate to predict the future financial performance. Therefore, the adopt NFPMs enables organisations to link tangible to intangible assets in the process of value creation. Then, organisations can move to the second stage by developing cause-effect relationships between performance measures in order to describe the company's strategy. By doing so, information on NFPMs enables organisations to signal their future financial performance. Then, the third phase involves implementing the organisational strategy through action and plans and/or target setting and by linked incentives. In this regard, the BSC goes beyond a tool of comprehensive communication. Evaluating and rewarding managers based on the BSC measures should result in superior managers' accountability for the achievement of targets.

Despite criticisms of BSC, organisations should take suggested cause-effect relationships into consideration. This is because linking different dimensions of performance measures to a single strategy will enable the organisation to create consistency and mutual reinforcement between a linked series of objectives and those measures. The better cause-effect relationships between various dimensions of performance measures can be built, the closer PMESs turn into PMASs: "The measurement system should make the relationship among objectives in the various perspectives explicit so that they can be managed and validated" (Kaplan and Norton, 1996c, p. 65). For instance, Burney *et al.* (2009) found that the causal relationship between performance measures used in the incentive plan reflected that the strategy is positively associated with procedure and distributed justice. This causal model enables the organisation to reduce gaming problems in the organisation.

When strategy is embedded in PMESs, they mutually influence each other. In this way, signals from PMESs enable the organisation to adjust its strategy and vice versa. Hence,

the organisation can manage both its current and future performance. Supporting this idea, Lebas (1995) argues that performance management is concerned more with the achievement of future performance rather than being focused on achieved performance. PMESs are about using historical data to evaluate the future performance and contribute to continuous improvement. While performance measurement involves KSFs to measure input, output, track past achievement and detect deviations, performance management emphasises training, team work, management style, attitudes, sharing vision, employee involvement, incentives and rewards.

Thus, Lebas (1995) suggests conditions of PMASs. Firstly, cause-effects relationships among performance measures need to be established. A causal model needs to be used when PMESs are designed to ensure that performance measures lead to actions. In this sense, PMESs only focus on measuring technical aspects of performance. PMESs become a necessary condition that enables the organisation to manage its performance effectively (Ansari, 1977). At the same time, actions need to be motivated by other control elements related to human behaviour, not only by performance measures themselves. In this sense, PMASs need to go beyond technical aspects of PMESs to take human aspects into account (Ansari, 1977; Lebas, 1995). Therefore, individuals are given the autonomy within their span of control. Additionally, individuals are empowered and involved in organisational activities. Moreover, an environment for discussion needs to be created in order to support continuous improvement. Furthermore, PMASs also support decision-making. Lebas (1995) concludes that performance measurement and performance management are intertwined as presented in Figure 3.5.

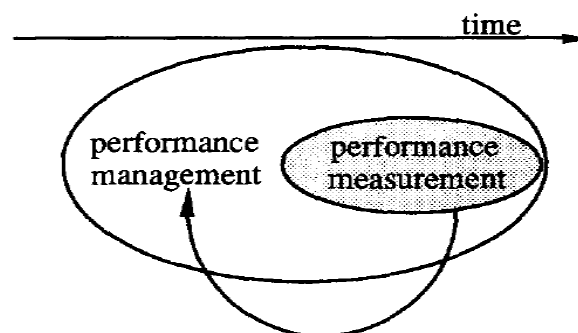


Figure 3.7: Intertwining between performance measurement and performance management, taken from Lebas (1995, p. 34).

Formal PMASs start with statements of vision and mission that address “the broad orientation and the overall direction that organisations wish to pursue” (p.267). The former articulates a desired future for a company. In detail, a vision defines a strategic direction and presents a conceptual map of how a company moves from its current reality to desired future states. The mission outlines the “overriding purpose of the organisations in line with the values and expectations of stakeholders” (Ferreira and Otley, 2009, p.268). Vision and mission render the organisational objectives more observable for the purpose of communication at all organisational levels. Vision and mission may be formally or informally communicated, but clear vision and mission play a guiding role in formulating and implementing organisational strategies and understanding actual operations of a PMAS (*ibid.*).

The KSFs of a PMAS are “those activities, attributes, competencies and capabilities that are seen as critical pre-requisites for the success of an organisation in its industry at a certain point of time”(Ferreira and Otley, 2009, p.268). KSFs should be identified by internal top management in relation to a specific time period. KSFs may come from five sources: first, the industry with its own structure and its own characteristics (e.g. demand characteristics, product features or employed technology), to which the organisation needs to pay attention; second, competitive position determined by organisational history and competitive strategy; third, environmental factors at the macro-level of the economy (e.g. gross national product, changes in political factors, or economic fluctuations); fourthly, temporal factors, or factors in the specific time frame, that challenge the organisation in implementing its chosen competitive strategy; fifthly, managerial position implicating a specific set of management derived KSFs (Bullen and Rockart, 1981)

The strategy is considered “the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals” (Chandler, 1962). The strategy itself is the means through which managers “can influence the nature of the external environment, the technologies of the organisation, the structural arrangements and the control culture and the MCS” (Chenhall, 2003, p. 150). The strategy can function at corporate, strategic

business unit and operational levels<sup>5</sup> (Langfield-Smith, 1997). An appropriate formulated strategy lays a solid foundation that significantly impacts on how other control elements should function (Kaplan and Norton, 1996b). This strategy is translated into actions and might be adjusted in the process of implementation. Actually implemented strategy incrementally emerges to cope with unrealistic expectations, or misjudgement of the environment (Langfield-Smith, 1997).

In brief, the aforementioned discussions point out that PMESs are sub-systems of PMASs. PMESs lay the foundation on which the organisation can improve effectiveness of performance management. PMESs can be transformed into PMASs through taking human aspects of control into account. Moreover, the organisation must take the strategy as a starting point to design and implement PMESs. In this sense, PMASs offer the organisation a tool to ensure validity of strategy and solve the problem of goal congruence at the same time.

### ***3.1.3 Relationships between PMESs, MCSs and PMASs***

Discussion in the two preceding sections highlights both distinctive characteristics of and relationships between PMESs, MCSs and PMASs. PMESs focus on technical aspects of control expressed through financial and non-financial organisational performance measures. PMESs are considered formal systems for control behaviours because performance measures are expected to be quantified and documented across organisational levels. Human behaviours can be controlled through MCSs that consist of both formal and informal mechanisms. Those sub-systems might co-exist or substitute for one another in different contexts. PMASs follow the logic of a means-end relationship. The organisational objectives are seriously taken into consideration, which is expressed in the language of organisational strategy. PMASs enable the organisation to control human behaviours while ensuring the validity of strategy. The relationships between PMESs, MCSs and PMAS are depicted in Figure 3.6.

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<sup>5</sup> Corporate strategy is concerned with direction of entire organisation regarding determinations of business types and converting distinct competences into competitive advantage. Business strategy or competitive strategies focus on the way that each strategic business unit within an organisation competes within particular industries. Operational strategy address issues about contributions of various functional areas to competitiveness of strategic business unit.

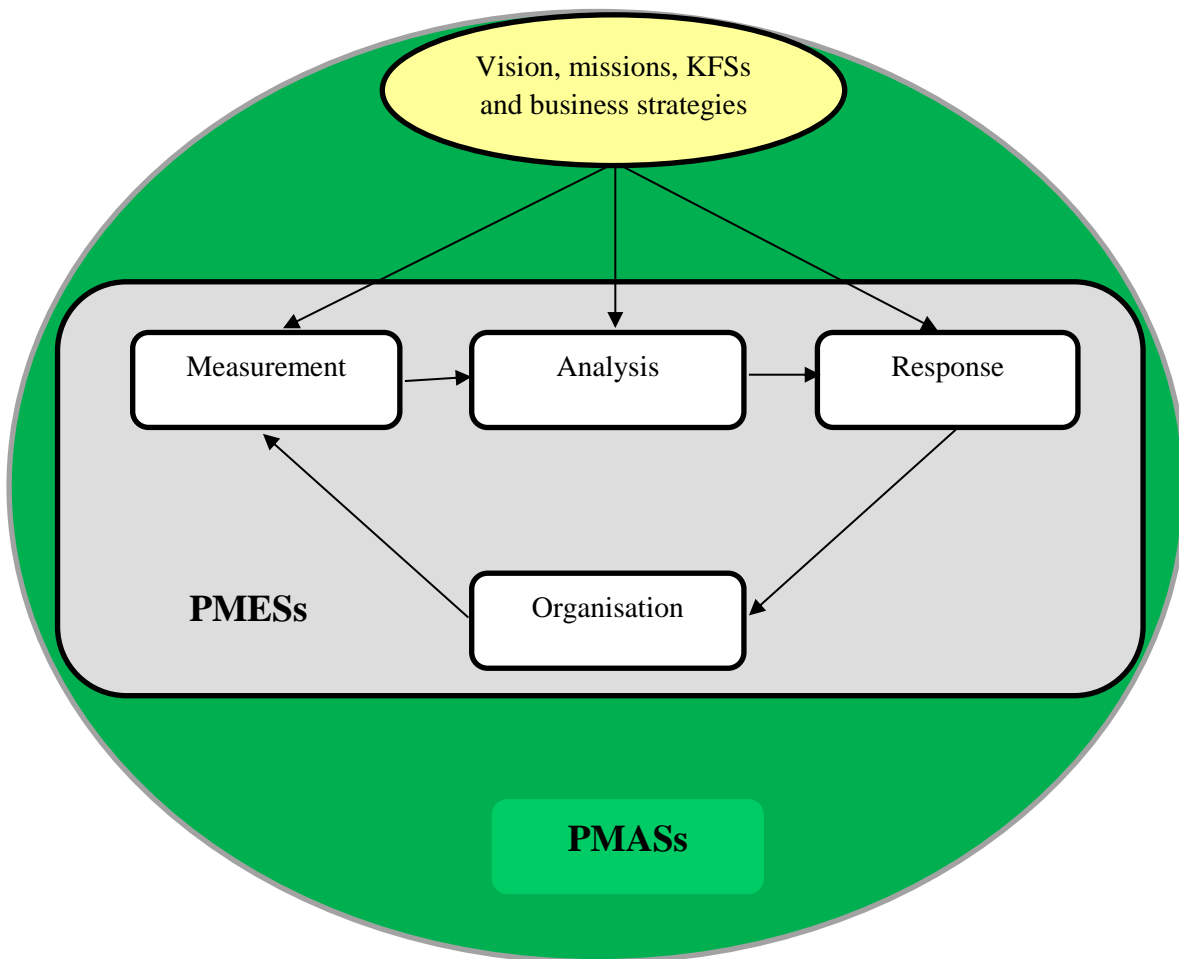


Figure 3.8: The relationships between PMESs, MCSs and PMASs

### 3.2 Five aspects of PMASs

PMASs are concerned with technical and human aspects of control in the organisation as well as the validity of organisational strategy. This concern is reflected in five key aspects of PMASs, namely the adoption of NFPMs, decentralisation of decision-making, participation in setting targets for organisational performance, interactive use of NFPMs and objectivity in performance evaluation and rewards (Ferreira and Otley, 2009). This section aims to provide explanations of why these aspects are seen as making the organisational performance more manageable.

#### 3.2.1 The adoption of NFPMs

NFPMs refer to non-monetary metrics used to measure performance in the organisation such as market share or on-time delivery (Kaplan and Norton, 1992). Similar to

financial performance measures, NFPMs play the role of *ex ante* and *ex post* controls. The former occurs when NFPMs are used to indicate anticipated performance standards while the latter concerns information about actual outcomes provided by NFPMs. Moreover, NFPMs enable the organisation to plan its activities systematically. Furthermore, NFPMs provide information for decision-making and problem-solving in organisations. Additionally, these measures function as a motivational device to gear individuals' efforts towards measures being evaluated and rewarded. Therefore, NFPMs are capable of influencing human behaviours via directing organisational members towards defined goals and standards of activities (Flamholtz *et al.*, 1985).

Since the late 1980s, NFPMs have been adopted to help the organisation to overcome shortcomings of financial performance measures (FPMs) (Kaplan and Norton, 1992). For some commentators, although FPMs (e.g. profit after tax, sales turnover, return on investment, residual income) might be sufficient to anticipate stock return, they are not adequate for managing organisational performance in a fast-changing business environment. This is partially due to historical nature of FPMs that draw a past picture of firm performance and provide "backward-looking" information for anticipation of future performance. This might affect adversely the quality of decisions made by managers (Eccles and Pyburn, 1992; Ittner and Larcker, 1998; Neely, 1999; Kennerley and Neely, 2003).

Speckbacher *et al.* (2003) argue that tangible assets are inadequate to create organisational value in the information age. Rather, value might be driven by intangible assets (e.g. innovation, flexibility, knowledge, good service quality, client loyalty, customer satisfaction). Therefore, conventional accounting models alone lose their capacity to capture all relevant information on organisational performance. Adoption of NFPMs enables the organisation to draw a linkage between intangible and tangible assets and better manage the process of value creation.

For Hopwood (1972), conventional accounting measures provide information on only a single ultimate dimension of organisational performance and they are incapable of capturing adequately the complexity of business activities. Intensively focusing on overly aggregated conventional accounting measures might lead to erosion of organisational competitiveness because managers are provided with inadequate and

inappropriate signals and guidance for continuous improvement and innovation. Moreover, financial measures are incapable of capturing interests and satisfactions of different stakeholders who collectively contribute to the success of the firm. Additionally, these measures provide information that is of little relevance to business strategies and how they might be comprehensively achieved (Kaplan and Norton; 1996c; Ittner and Larcker, 1998).

Using NFPMs, in some combination, goes beyond the traditional approach to performance measures, sometimes in quite significant ways in terms of the mode of usage, as comparisons made by Ghalayini and Noble (1996), summarised in Table 3.1, indicate.

Traditional performance measures	Non-traditional performance measures
Mainly financial measures	Mainly non-financial measures
Lagging metrics	Timely metrics
Not applicable for new management techniques (e.g. JIT, TQM)	Applicable for new management techniques (e.g. JIT, TQM)
Mainly available for middle and high managers rather than all employees	Intended for all employees
Non-financial measures disconnected with business strategies	Based on company's strategies
Non-financial measures used to monitor performance	Non-financial measures used to improve performance

Table 3.1: Traditional versus non-traditional performance measures, taken from Ghalayini and Noble (1996)

In practice, the adoption of NFPMs relies on organisational purposes of using PMESs. According to Van Veen-Dirks (2010), the organisation typically does not use the same performance measures for different purposes. For a particular purpose, some performance measures might be more important than others. Henri (2006) found that organisations that use PMESs for attention focusing and strategic decision-making tend to incorporate more NFPMs in their PMES that those using PMESs for the purpose of monitoring and legitimization. Therefore, the purposes attached to PMESs might explain variations in the adoption of NFPMs reported by Speckbacher *et al.* (2003) in a study of German-Speaking countries: NFPMs on “Learning and Growth” were less popular than that on “Customer” and “Internal Business Process” (57% compared with 93% and 98% respectively).



Moers (2005) warns that biases in performance evaluation might occur due to conflicting outcomes indicated by multiple performance measures. Problematic evaluation of performance among subordinates might reduce firm performance because of incurred higher costs related to compensating poorer performance, less informative personnel decisions and demotivation.

In brief, although NFPMs themselves still face criticism in practices, the adoption of NFPMs enables the organisation to manage its performance better through obtaining a more complete performance picture, maintaining validity of organisational strategy and rendering the organisation more flexible through continuous learning and innovation to increase its ability to respond to changes in its environment (e.g. Kaplan and Norton, 1992; Ghalayini and Noble, 1996; Kaplan and Norton, 1996b; Kaplan and Norton, 1996c).

### ***3.2.2 Decentralisation of decision-making***

Decentralisation of authority refers to “the existence at lower levels within the organisation of a broad scope or discretion over organisational activities” (Waterhouse and Tiessen, 1978, p. 69). This is consistent with Zannetos (1965, pp. 52-53) who refers “[a]n administrative organisation is centralized to the extent that decisions are made at relatively high levels in the organisation; decentralized to the extent that discretion and authority to make important decisions are delegated by top management to lower levels of executive authority”. Similarly, Nahm *et al.* (2003, p. 287) defines the degree of decentralisation of decision-making in terms of the locus of decision-making concerning “the degree to which decisions are made higher versus lower in the organisation hierarchy”. This important aspect of organisational structure entails “the way responsibility and power are located, and work procedures are carried out among organisational members” (Nahm *et al.*, 2003, p. 283).

The locus of decision-making is expressed differently in organic and mechanistic organisations. In contrast with the latter, the former tends to be low in its locus of decision-making (Thompson, 1967; Nahm *et al.*, 2003). Nahm *et al.* (2003) found that the “locus of decision-making” is driven by other aspects of organisational structure. Firstly, organisations characterised by formalization that (deprives) encourages autonomous work and learning have a (high) low locus of decision-making. While well-

established and clearly specified rules, procedures or standards become tools assisting the manager to cope with problems and facilitate decentralisation of decision-making, formalisation in organic organisations may encourage creativity and autonomous work and learning (Nahm *et al.*, 2003). Secondly, organisations with fewer layers of hierarchy have a low locus of decision-making (and vice versa). Mechanistic organisations tend to expand hierarchical levels in order to control behaviours via commanding and obeying rather than encouraging commitment to shared goals. In contrast, organic organisations encourage coordination based on expertise and information circulation through a flatter structure. Thirdly, organisations typically have a low locus of decision-making when levels of horizontal integration are high (and vice versa), where the “[l]evel of horizontal integration is the degree to which departments and workers are functionally specialized versus integrated in their work, skills and training” (Nahm *et al.*, 2003, p. 287). Mechanistic organisations are organised into different functional departments and works are carried out in sequential manners, while organic organisations bring their members into autonomous work and cross-functional teams. Therefore, the degree of decentralisation of decision-making can be used to evaluate the extent to which organic or mechanistic structure is practiced by an organisation.

Adopting an appropriate structure enables the organisation to determine the responsibilities and accountabilities of organisational participants. In other words, the organisational structure formally establishes individuals’ roles and tasks and directs their attentions to their activities (Ferreira and Otley, 2009). Structural arrangements influence “the efficiency of work, the motivation of individuals, information flows and control systems and can help shape the future of the organisation” (Chenhall, 2003, p. 145)

### ***3.2.3 Participation of lower level managers in setting targets for organisational performance***

Participation is a process in which individuals from across organisational levels share involvement in information-processing, decision-making or problem-solving endeavours (Wagner III, 1994). Sharing the same concerns with decentralisation of decision-making about involvement of lower managers and employees in the process of

making decisions, participation emphasises joint decision-making between superiors and subordinates while decentralisation of decision-making focuses on maximizing authority that gives absolute discretion to lower managers (or employees) to carry out their tasks or jobs. Therefore, participation and decentralisation of decision-making may be considered two extremes of a continuum (Richardson *et al.*, 2002).

The amount of influence in the above regard may be located on a continuum and categorised into point scales, such as a five points scale. Firstly, no information to inform decisions may be provided in advance. Secondly, information to inform decisions may be provided in advance. Thirdly, employees can be asked to give their opinions before decisions are made. Fourthly, a decision can be vetoed by employees. Fifthly, decisions are made by employees. Participation may be more formal or more informal. The former is based on systems of rules on issues that employees can participate in while the latter occurs through the interpersonal relationship between managers and subordinates. The degree of formality is influenced by underlying values of the organisation, organisational objectives and societal contexts of organisations. Employees can participate directly through expressing their opinions, providing suggestions or asking questions themselves rather than through their representatives (Dachler and Wilpert, 1978; Wagner III, 1994).

Much literature has acknowledged the vital role of participation in setting performance targets in managing organisational performance under budgeting, which concerns the involvement and influence of managers in the process of setting their budgetary targets (e.g. Shields and Shields, 1998; Covalleski *et al.*, 2003). Researchers and practitioners assume that this practice has substantial, positive effects on organisational performance due to several reasons (Wagner III, 1994). Firstly, managers have clear, planned goals and objectives for their jobs (Chenhall and Brownell, 1988). Secondly, organisational commitment is strengthened. Managers may be willing to devote more time and effort in this context in the hope of contributing to their organisations' successes. Thirdly, information related to various areas of responsibilities, opportunities and problems is vertically and horizontally shared (Nouri and Parker, 1998; Parker and Kyj, 2006). Fourthly, this practice not only contributes to distributive justice but also procedural justice (Lindquist, 1995).

### ***3.2.4 Interactive use of NFPMs***

Interactive use of NFPMs refers to how managers use NFPMs to ensure the success of business strategy (Abernethy and Brownell, 1999). Such appreciation is rooted in the interactive control systems described by Simons (1995), in relation to the validity of the business strategy under an uncertain environment. Interactive use focuses on the learning role of PMASs from a bottom-up approach in order to ensure successful attainment of organisational objectives. These systems develop four characteristics. Firstly, the systems generate important information related to strategic issues addressed repeatedly by senior managers. Those managers personally and continually are involved in identifying key issues of strategy implementation, establishing new programmes, and milestones, reviewing progression of action plans, and regularly following up related changes in the external environment. Secondly, the generated information is discussed and interpreted by senior managers and their subordinates through face-to-face meetings. Thirdly, interaction of the systems are paid attention to and maintained by operating managers across organisational levels. Fourthly, the systems address continuous challenges, and debate underlying data, assumptions and action plans upon which the organisation pursues its business strategy. In this way, the intended business strategy is adjusted during the process of implementation (Simons, 1995; Abernethy and Brownell, 1999). For instance, Abernethy and Brownell (1999) investigate the learning role of budgets in the formulation and implementation of strategic change. They found that the interactive style of using budgets is adopted when the organisation needs to redirect its business strategy in a fast changing environment.

The adoption of NFPMs offers the organisation opportunities to use PMASs that are more interactive than in the prior employing of only conventional budgeting systems. In the setting of low innovative companies, Bisbe and Otley (2004) found that interactive use of BSC positively impacts on product innovation (e.g. product modification or timely product introduction to the market) whereas that of budgets has the reverse impacts. The reason for this might lie in the characteristics of NFPMs incorporated in BSC. NFPMs are more easily understood by operating managers than FPMs. Thus, NFPMs may be more capable in facilitating discussions or debates across organisational levels than conventional accounting measures. Moreover, NFPMs provide more timely, detailed, process-based and future-focused information than FPMs.

As a result, NFPMs enable managers at different levels to notice on-going changes in their organisation and the influences of such changes on business strategy, facilitating the bringing of these insights to debates and discussions.

### ***3.2.5 Objectivity in performance evaluation and rewards***

Objectivity in performance evaluation and rewards refers substantively in the literature to using quantified and documented NFPMs or FPMs to evaluate and reward managers and employees at different organisational levels (Moers, 2005; Hartmann and Slapničar, 2009). Agency theorists stress the importance of monetary compensation and rewards in creating extrinsic motivation while psychologists have realised the contribution of intrinsic motivation attached to performance measurement, performance evaluation and rewards (Riedel *et al.*, 1988; Frey and Jegen, 2001; Bonner and Sprinkle, 2002; Hall, 2008; Hartmann and Slapničar, 2009). Through maintaining objectivity in performance evaluation and rewards, the organisation can minimize the gap between individual and organisational interests to achieve organisational objectives (Sprinkle, 2003; Van Veen-Dirks, 2010). The previous studies (e.g. Burney *et al.*, 2009; Hartmann and Slapničar, 2009) found that objectivity in performance evaluation and rewards is positively associated with fairness, one of the driving forces for improving employees' performance. At the same time, the current literature suggests some benefits of subjectivity related to performance evaluation and rewards. For Baker *et al.* (1994), subjective assessments might mitigate dysfunctional behaviours caused by imperfect objective performance measures. Thus, the organisation can obtain optimal incentive contracts. Similarly, Baiman and Rajan (1995) argue that exploitation of subjective evaluation in bonus pool arrangements can restrict managers to play games in terms of non-contractible information. These suggest that either objectivity or subjectivity in evaluating and rewarding performance is likely to depend on specific circumstances.

## **3.3 Contingency theory**

### ***3.3.1 The central idea of contingency theory***

The main proposition of contingency theory applied for PMAS studies is that "a better match between the control systems and the contextual contingency variables is hypothesized to result in increased organisational (individual) performance" (Fisher,

1998, p. 48). In other words, contingency theorists argue that universalistic approach to the design and use of control systems in general and PMAS practices in particular to enhance organisational performance is unrealistic or sub-optimal. Rather, the nature of control systems significantly relies on the context in which the organisation is operating (Burns and Stalker, 1961; Lawrence and Lorsch, 1967; Thompson, 1967; Perrow, 1970). This central idea of contingency theory is expressed via concept of fit defined as a degree to which organisational design, structure or control elements match organisational contextual variables (e.g. external environment or production technology), and the extent to which this fit has impacts on organisational performance (Drazin and Van De Ven, 1985; Fisher, 1995; Chenhall, 2003; Gerdin and Greve, 2004; Gerdin and Greve, 2008; Grabner and Moers, 2013; Burkert *et al.*, 2014). This focal idea is illustrated by Donaldson (2001, pp. 7-8) in the following statement:

“Structure contingency theory contains three core elements that together form its core paradigm. First, there is an association between contingency and organisational structure. Second, contingency determines the organisational structure, because an organisation that changes its contingency then, in consequence, changes its structure. Third, there is a fit of some levels of the organisational structural variables to each level of contingency, which leads to higher performance, whereas misfit leads to lower performance. [...] An organisation that changes the level of its contingency tend to have been in fit when it made the change, and then to move into misfit so that its performance decreases. The organisation then changes its organisational structure to fit the new level of the contingency variable, in order to avoid further performance lost. Therefore, because of the performance lost by being in misfit, organisations tend over time to move toward fit [...] In this way, the contingency and the organisational structure move into alignment and so arises the association between the contingency and the organisation structure.”

Gerdin and Greve (2004) make distinctions between what they call the Cartesian and Configuration approaches to organisational design in relation to contingency theory. Advocates of the Cartesian approach argue that fit points between context and organisational design are numerous due to continuous adaptation between them over time. In contrast, advocates of the Configuration approach argue that the number of fit points between context and organisational design is limited for two reasons. This approach takes numerous contextual and structural variables into consideration while the Cartesian approach only takes few variables into account simultaneously. Therefore, the organisation only changes its structure when the costs of misfit between the structure and contextual factors exceed the costs of replacement. The idea of fit is manifested in various forms of fit based on assumptions about the relationship between organisational design, contextual variables, and organisational performance (Drazin and

Van De Ven, 1985; Fisher, 1995; Chenhall, 2003; Gerdin and Greve, 2004; Gerdin and Greve, 2008; Grabner and Moers, 2013; Burkert *et al.*, 2014).

### ***3.3.2 Forms of fit in contingency theory***

#### *3.3.2.1 The selection form of fit*

The selection form of fit assumes congruence between organisational design and its contextual factors (Drazin and Van De Ven, 1985; Gerdin and Greve, 2004). “Fit is the result of an evolutionary process of adaptation that ensures that only best-performing organisations survive” (Drazin and Van De Ven, 1985, p. 156). Therefore, only relationships between contextual variables and various characteristics of organisational design are tested. The variable of organisational performance is not included in the model (Drazin and Van De Ven, 1985; Gerdin and Greve, 2004). “According to this ‘fit’ concept, theory predicts optimisation through selection, and therefore, theory does not predict performance differences. Any cross-sectional performance difference cannot be explained by the same theory that predicts difference in PMAS design or use, and should be considered noise” (Hartmann, 2005, p. 330 and the italics were added). Therefore, the selection form of fit was criticized as an extremely crude form of fit that might be flawed logic for testing the notion of fit in contingency theory (Gerdin and Greve, 2004).

#### *3.3.2.2 The interaction form of fit*

The interaction form of fit aims to explain variation in performance between organisations through the extent to which a single characteristic of organisational design matches a single contextual variable. Performance of an organisation is more likely to be improved when characteristics of organisational design reflect that of organisational context. Organisations achieving a high degree of fit between their PMAS practices and contextual factors might perform better than those experiencing a low degree of fit between their PMAS practices and contextual factors. Therefore, this approach enables researchers to directly identify impacts of context-organisational design on organisational performance (Drazin and Van De Ven, 1985). For Hartman (2005), the interaction form of fit predicts performance differences, but does not predict differences in PMAS design and use. “Any cross-sectional differences in PMAS design or use cannot be explained by the same theory that predicts performance differences, and should be considered noise” (Hartmann,

2005, p. 330 and the italics were added). According to Hartmann (2005), this form of fit can be tested through identifying the impacts of PMAS practices on organisational performance across levels of the context known as the moderation model (see Figure 3.7).

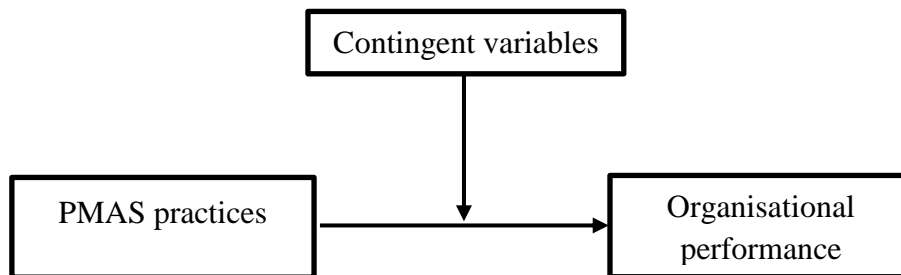


Figure 3.9: Moderation model

### 3.3.2.3 *The system form of fit*

The system form of fit emphasises “the patterns of interdependencies present in organisations” (p.519). On the one hand, the interdependency refers to consistency between characteristics of organisational design and multiple contingencies. On the other hand, the interdependency refers to internal consistency among different control elements. Theoretically, these internal consistencies are likely to result in better organisational performance. In contrast to previous approaches, the systems approach aims to overcome the problem of reductionism that examines different control elements separately.

Following the logic of the systems approach, Grabner and Moers (2013) explicitly define the term “internal consistency” or “interdependence” through mathematical equations that provide for researchers an alternative approach to address issues related to the concept of fit and test this central idea of contingency theory empirically. Grabner and Moers (2013) argue that decision-makers aim to maximize the net-benefits from the adoption of any control practices. All control practices are interlinked in space and time. A change in one control practice is potentially impacted significantly by the other control practices (and by their historical trajectory as well as by the trajectory of the control practice itself), by the context variables and by the costs of adoption. To maximize net-benefit, the decision-maker should ensure matching between a new control practice and organisational contingencies and the chosen, internally consistent, control practices. One way to empirically test this idea is to identify control problems that might be solved by various control practices.



### ***3.3.4 Prior pioneering studies of contingency theory***

Contingency theory is rooted in a sociological perspective of organisations, which has hugely impacted in the field of organisational studies. This section will review prior pioneering studies that lay the foundation for contingency theory.

#### ***3.3.4.1 Burns and Stalker (1961)***

For Burns and Stalker (1961), the rate of changes of the market and technical conditions influence orientation of management systems. In the condition of stability, “at all *organisational* levels, decision-making occurred within the framework of familiar expectations and beliefs, many of which could be formulated numerically as a programme” (p. 83). In contrast, facing rapidly changing conditions, it is difficult to centrally specify individual tasks. Rather, they are results of interactions between multiple parties in a continuous process of self-education. Moreover, the management structure can be redefined as a result of effective communication. The authors suggest the organisation can adapt its management system to “a specific rate of technical and commercial change”. A mechanic system functions well in a stable environment. An organic system benefits the organisation that operates in changing conditions. Each system presents a rational form of organisation that enables the organisation to deliberately and explicitly create, maintain and exploit organisational capacities to become more efficient in the circumstances of the concern.

#### ***3.3.4.2 Woodward (1965)***

Woodward (1965) explores the link between organisational structure and technological complexity classified as unit and small batch production, large batch and mass production and process production. She concludes that “firms with similar production systems appeared to have similar organisational structure” because technology influences the roles defined of formal organisations, and people behaviours (p.50). Her study suggests that some production systems render control exercises more difficult than others (e.g. jobbing production versus batch production). Firms experiencing technological changes (e.g. from process to batch production) require changes in patterns of interaction. The organisation maintains its existent network of communication while building a more complex one. Communication is not only limited

within departments, but cross sectional communication is needed. Therefore, Woodward (1965)'s study strongly suggests there is no one best way of managing organisation.

#### *3.3.4.3 Lawrence and Lorsch (1967)*

Arguing that there is no one best way to organize in all situations, Lawrence and Lorsch (1967) attempt to answer the question "what kind of organisation does it take to deal with different environmental conditions?"(p.3). According to them, the organisation requires different characteristics to respond to different external conditions. The organisation is divided into specialized departments that differentiate in terms of orientation (e.g. goal orientation, time orientation, and interpersonal orientation) and formality structure (different formal reporting relationships, different criteria for rewards, and different control procedures). At the same time, the departments collaborate to achieve shared organisational goals. In this sense, departments themselves are naturally characterized by differentiation and integration. Lawrence and Lorsch (1967) find that a degree of formalized structure of a department within the organisation relates to the certainty of its relevant sub-environment. For instance, facing a more certain sub-environment, the production department tends to have the highest degree of formalization compared to the sales department, facing a more uncertain sub-environment. Moreover, departments that operate in more uncertain conditions require less formalised structure, more frequent feedbacks and less task-oriented-members than those operating in stable conditions. Additionally, the study suggests that to achieve high performance, the organisation needs to maintain high differentiations and integrations among its departments. The findings imply that the matching between characteristics of control systems and organisational environment contributes to improvement of organisational performance.

#### ***3.3.5 Contingency-based management accounting research***

Contingency theory started to be employed in management accounting research since late 1970s (Chenhall, 2003). Researchers in this field, such as Otley (1980, p. 413), advocate it as follows:

"...particular features of an appropriate accounting system will depend upon the specific circumstances in which an organisation finds itself. Thus, a contingency theory must identify

specific aspects of an accounting system which are associated with certain defined circumstances and demonstrate an appropriate matching”

The earliest work of Gordon and Miller (1976) attempted to explain how external environment and organisational structure have impacts on the decision-making style of executives. Different elements of external environment (e.g., environmental dynamism, environmental heterogeneity and environmental hostility) and of organisational structure (e.g., decentralisation, differentiation and bureaucratization) are two main classes of contingency variables that engender different accounting information system characteristics. These, in turn, impact so as to influence the decision-making style of executives.

Regarding the external environment, the authors look at three dimensions of environment namely dynamism, hostility and heterogeneity. Firstly, environmental dynamism refers to the extent of stability and predictability of different environmental elements that the organisation faces. Some firms might face much more dynamic environments where its customers’ tastes shift rapidly and unpredictably, new production technologies often arise, and many radically new products are introduced by its competitors. Secondly, environmental hostility that is closely related to environmental dynamism refers to threats that firms face, e.g., regarding actions of their competitors, shortages of scarce resources due to strike, governmental regulations. As a result, these two groups of firm need different accounting information. An increased level of environmental dynamism leads to incorporation of more non-accounting information data (e.g. information beyond the numerical), more frequency of reporting and better forecast information to provide managers with information about new trends in customers’ tastes, competitor actions and shifting demographic factors. Thirdly, environmental heterogeneity refers to diversity of environment in terms of product-market orientations, consumer characteristics, production technologies and raw material markets. When environment becomes more heterogeneous, accounting information should be decentralised to effectively satisfy the needs of different parts of the organisation.

Waterhouse and Tiessen (1978) identify control requirements for a particular organisational sub-unit based on characteristics of its environment and technology. The former is characterised by stability and unpredictability while the latter is defined with regards to degree of routines. The authors argue that a sub-unit of the organisation is

likely to be dominated by operational or managerial functions. External environment tends to have more impacts on the latter than the former while technology tends to have more effect on the former than the latter. This is partly because operational functions are responsible for effectiveness and efficiency within the organisation while managerial functions need to deal with more complex problems (e.g. task specification, inputs, outputs, coordination between functional sub-structures). In stable conditions, procedures of either managerial or operating functions can unambiguously be specified, standardized and documented. However, these might not work well under uncertain conditions where discretion is needed to solve problems requiring individuals' knowledge, expertise and skills.

Although the aforementioned works lay the foundation for how contingency theory should be applied in the field of management accounting, the framing is too simplistic. The authors did not take organisational objectives and organisational outcomes into consideration (Otley, 1980). As a result, a more comprehensive contingency framework (see Figure 3.8) proposed by Otley (1980) considers organisational control as a package including accounting information system design, other management information system design, organisational design and other control arrangements. On the one hand, this package is influenced by contingency variables. On the other hand, this control package explicitly or implicitly impacts organisational effectiveness measured in relation to the organisational objectives.

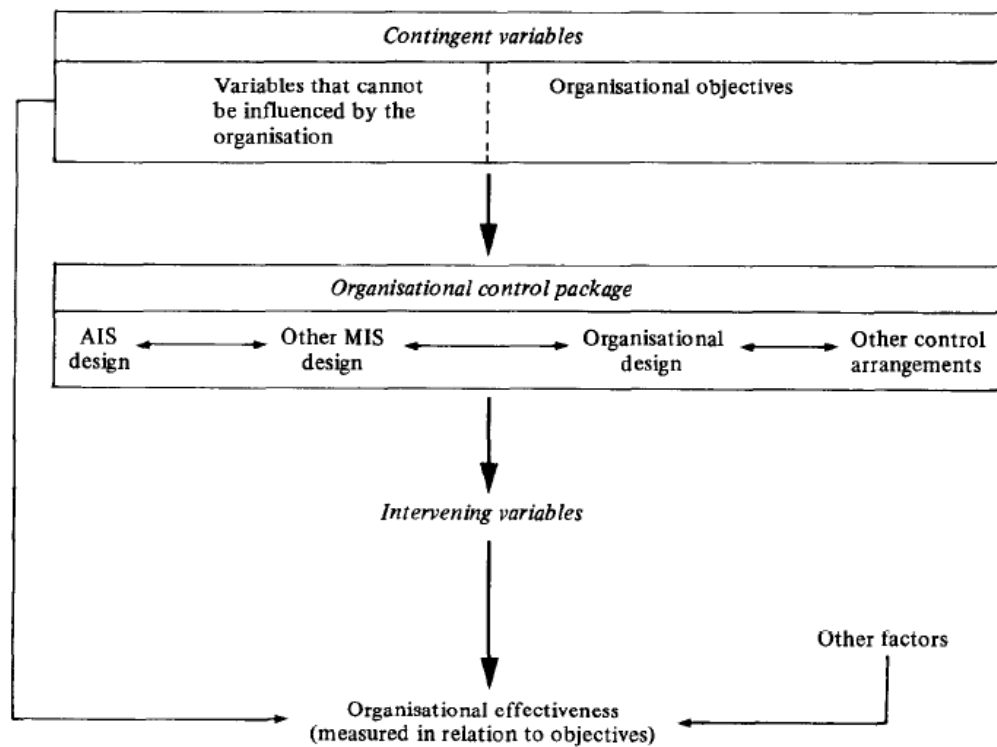


Figure 3.10: A contingency framework, taken from Otley (1980)

Otley's (1980) framework proposes three important elements that might be included in an empirical study. The first element relates to the contingent variables that play an important role in the development of a contingent model. As Fisher (1998, p. 49) states: "...a contingent variable is relevant to the degree that businesses that differ on that variable also exhibit major differences in how control attributes or actions are associated with performance". Concerning this issue, a recent review of contingency-based empirical research on MCSs published by Chenhall (2003) points out six groups of contingent factors namely external environment, technology, organisational structure, organisational strategy, organisational size, and culture. The second element concerns the control practice or set of control practices which might be influenced by one or more contingent factors. The third element included in the model is organisational outcomes such as effectiveness or efficiency.

Concerning relationships among the three aforementioned elements of the contingent model, Fisher (1995) classified contingency-based studies into four types of analysis. Firstly, the study identifies the impact of single contingent factor on a single control practice. Secondly, the study examines the joint effect of a single control practice and single contingent factor on an outcome variable. Thirdly, the study examines the joint

effect of a contingent factor and multiple control practices on an outcome variable. Fourthly, the study analyses configuration of the optimal control design to fit multiple contingent factors simultaneously. This classification reflects different forms of fit suggested by contingency theorists as discussed in section 3.3.2.

### ***3.3.6 Criticisms of contingency theory***

Contingency theory has been criticised because it takes a strongly reductionist approach to organisational control (Malmi and Brown, 2008; Grabner and Moers, 2013). Relationships between contextual variables and control practices are examined through cross-sectional survey followed by statistical analysis (Chapman, 1997; Chenhall, 2003). Noticeably, most previous studies employ selection and interaction approaches rather than the systems approach to the concept of fit. Consequently, interdependence among various control practices are not taken into consideration (Malmi and Brown, 2008; Grabner and Moers, 2013). Moreover, statistical results only reflect interactions between control practices and contingent factors as well as impacts on organisational outcomes at a specific point of time. Therefore, the theory is incapable of understanding the underlying process in which the control practices change over time (Covaleski *et al.*, 2003).

The second criticism concerns challenges to bring the concept of fit into empirical studies (Chenhall, 2003). While Cartesian and Configuration scholars suggest support for the existence of the fit points, Donaldson (2001) argues that while the organisation attempts to adapt its structure and control practices to contingent factors, these contingencies themselves also change. The organisation attempts to reduce the degree of misfit, while full fit becomes an extreme ideal point. Given existence of fit points, comprehensive application of statistical techniques are required to ensure research hypotheses are empirically tested. Hartmann and Moers (1999), in a comprehensive review, point out serious flaws of a moderating model used to test hypotheses related to the concept of fit in budgetary research due to the uncritical application of statistical techniques. This model has been prevalently used to test impacts of a particular contextual variable on the nature or strength of relationships between various PMAS practices and outcome criteria (Chenhall, 2003). Consequently, a misfit between forms

of fit and statistical techniques leads to invalid findings caused by untested hypotheses (Gerdin and Greve, 2008; Burkert *et al.*, 2014).

The third concern lies in issues of defining variables that makes previous findings incomparable across prior contingency-based studies (Otley, 1980; Chenhall, 2003; Bisbe *et al.*, 2007). Contingency theory generally provides the idea concerning impacts of a particular control practice on organisational outcomes under different conditions. For Chenhall (2003, p. 157), "...the term contingency means that something is true only under specified conditions. As such there is no "contingency theory", rather a variety of theories might be used to explain and predict the condition under which particular MCS will be found or where they will be associated with enhanced performance". Therefore, it tends to be integrated with other theories from the field of economics or psychology to achieve a stronger power of prediction in a particular context. In this sense, the complementary theories provide theoretical justification for labelling a variable as a moderator in a contingency-based hypothesis (Hartmann and Moers, 1999).

For this reason, levels of analysis (e.g. individual, subunit, organization, or beyond the organization) need to be clearly identified to ensure appropriate theories are complemented with contingency theory (e.g. Covaleski *et al.*, 2003; Luft and Shields, 2003). By doing so, the concepts and research variables are well defined before being operationalized to ensure validity of empirical findings at studied levels. In other words, the study can provide the valid empirical evidence through maintenance of alignment between level of theory, level of variable measurement (source of evidence), and level of data analysis (unit of data). Otherwise, the studies might produce invalid findings due to ambiguity of the same research variables applied at different organisational levels (Chenhall, 2003; Covaleski *et al.*, 2003; Luft and Shields, 2003).

### ***3.3.7 Contributions of contingency theory to management accounting research***

Despite being attacked by criticisms, contingency theory (or the contingency approach) considerably contributes to management literature. The contingency approach views the organisation as an open system influenced by the environment, encompassing both external and internal factors, under which the organisation is operating. The organisation can achieve better performance or outcomes by different equivalent paths. This approach provides a strong counterargument to the notion that there is one best

way to organise or manage that was traditionally dominated by principles of Scientific Management. Therefore, the idea of contingency lays the foundation for explanations and predictions of PMAS practices on organisational outcomes in particular situations (Woodward, 1965; Thompson, 1967; Otley, 1980). In practice, the organisation can obtain an appropriate design in order to improve organisational efficiency and effectiveness if situational factors are taken into consideration (Ferreira and Otley, 2009). Moreover, the concept of fit can be complimented with other theories in various fields to gain better explanations of research phenomenon under investigation, which results in theory development or refinement (Chenhall, 2003). For instance, Grabner and Moers (2013) have developed the concept of interdependence among control practices based on the system approach to forms of fit. This enables the researcher to overcome criticisms of reductionism levelled at contingency theory.

### **3.4 Summary**

The chapter has presented the researcher's understanding about PMASs, five aspects of PMASs, and contingency theory in order to lay the foundation of the study's conceptual framework in the following chapter. In terms of PMASs, by comparing PMASs to MCSs and PMESs, the study suggests that PMESs lays the foundation for MCSs defined as systems of controlling behaviour, and PMASs defined as systems of controlling human behaviours and ensuring the validity of organisational strategies. For PMASs, the business strategy is embedded in PMASs rather than considering a contingency factor. In this way, the organisation can make its performance more manageable through comprehensively conveying its objectives to its members in order to direct their behaviours towards shared goals. The study emphasises variations of five PMAS practices. At the same time, the review of literature suggests that the organisation appears to have tendency of adopting NFPMs, decentralising decision-making, encouraging participation of lower managers in setting targets for organisational performance, using NFPMs interactively, and incorporating subjectivity in performance evaluation and rewards when the organisation face a higher level of internal and external uncertainty. The study has discussed contingency theory with respects to its central proposition, the prior pioneering studies, and its application in the field of management accounting. Despite its criticisms, this theory, on the one hand, pays attentions to the concept of fit between PMASs and contextual factors in relation



to organisational performance. On the other hand, the interdependence or internal consistency between various PMAS practices in relation to contextual factors and its impacts on performance are emphasised.

The review of contingency-based literature indicates quantitative contingency-based studies have been dominant. Based on only statistics, these studies appear to face challenges in provision comprehensive insights into notion of fit under investigation in a particular setting. Therefore, this study employs both quantitative and qualitative methods to explore PMAS practices in the context of Vietnam, a communist country has experienced the economic reform since 1986. The following chapter will provide a conceptual framework for two phases of the study. The quantitative phase focuses on impacts of two contingent variables namely PEU and task uncertainty on five aspects of PMASs and effects of these practices on organisational performance while the qualitative phase deepen analyses regarding PMASs, contingent variables and their linkages in relation to organisational performance. At qualitative phase, organisational culture is taken into account as a vital factor because it may hinder or create motivation for changes of PMAS practices.

## **Chapter 4: Elaborating a Conceptual Framework for the Study**

This chapter aims to articulate the conceptual framework for the study (section 4.1), which is presented in section 4.1. In section 4.2 and 4.3 the framework is translated into hypotheses concerning impacts of PEU and task uncertainty on five aspects of PMAS practices. In section 4.4 of this chapter, the framework is translated into hypotheses concerning impacts of PMAS practices on organisational performances. This is followed by further elaboration of the framework in terms of organisational culture, its impacts on PMAS practices and change resistance in the process of PMAS change (section 4.5) before a summary of the chapter (section 4.6).

### **4.1 Delineation of the study**

In order to answer the research questions posed in Chapter 1 concerning nature of PMASs in the context of Vietnam, a conceptual framework here is delineated. This framework (Figure 4.1) consists of three elements: contingent variables, PMAS practices, organisational performance. PMAS practices are understood to be driven by PEU, task uncertainty and organisational culture<sup>6</sup>. PMAS practices, in turn, impact organisational performance. Additionally, those contingent variables might moderate the relationships between PMAS practices and organisational performance. This framework emerges from the review of literature in the previous chapters and is translated into formulation the research hypotheses sections below.

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<sup>6</sup> Organisation culture is not included the quantitative phase of the study, but is included in the case study.

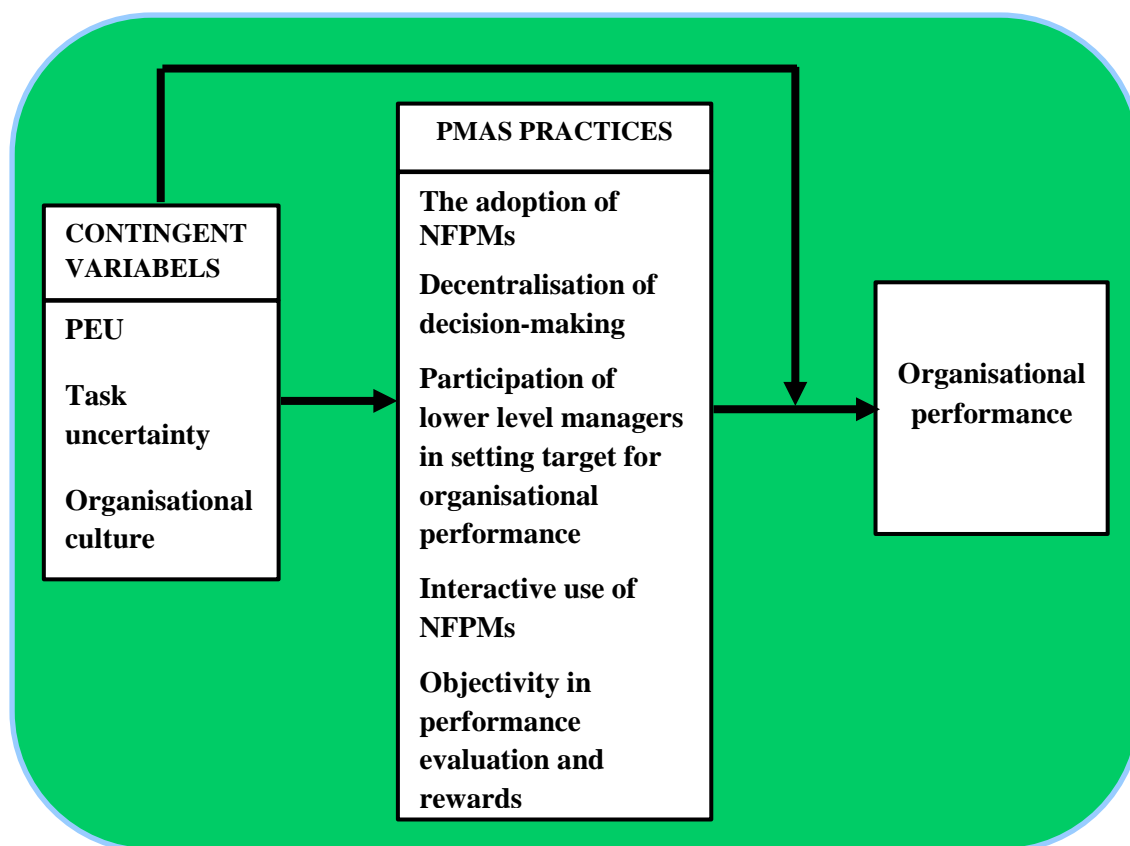


Figure 4.1: A diagrammatic outline of the conceptual framework of the study

## 4.2 Impacts of PEU on PMAS practices

### 4.2.1 Definition of PEU

PEU, a vital factor influencing PMAS, refers to the difficulty in calculating probabilities and predicting future events of the external environment (Tymond Jr *et al.*, 1998; Chenhall, 2003). PEU is defined by Duncan (1972) as follows:

- (1) lack of information regarding the environmental factors associated with a given decision-making situation;
- (2) not knowing the outcome of a specific decision in terms of how much the organization would lose if the decision were incorrect;
- (3) inability to assign probabilities with any degree of confidence with regard to how environmental factors are going to affect the success or failure of the decision unit in performing its function (p.318).

Uncertainty is non-quantitative in nature which distinguishes it from risk when probabilities can be attached to a particular outcome (Chenhall, 2003; Lueg and Borisov, 2014). PEU

reflects both perceptions of PEU based on managers' knowledge and the nature of the environment itself. In other words, PEU is an image of an external environment including suppliers, competitors, customers, financial markets, and government agencies translated into cognition or perception of top management (Tymond Jr *et al.*, 1998). On the one hand, PEU reflects the intensity of market competition manifested in different types such as price, marketing or product competition when a number of companies provide similar or substitutable products increases. On the other hand, PEU reflects dynamic changes in environmental factors such as customers' tastes, technologies, sources of supply and new products introduced by competitors (Khandwalla, 1972a; Gordon and Miller, 1976; Gordon and Narayanan, 1984).

#### ***4.2.2 PEU and the adoption of NFPMs***

Organisations that operate in less uncertain environments typically face less intensity of competition (Khandwalla, 1972b; Guilding and McManus, 2002). This might be derived from considerably strict government regulations (e.g. entry restriction, price or volume control) that lead to a limited number of firms providing similar or substitutable products. Therefore, the organisation might face fewer challenges in scrutinising changes in various environmental factors. Moreover, future events and their consequences might be more predictable and organisational plans can be valid for a longer time-period (Gordon and Narayanan, 1984). Consequently, suppliers appear to have more power than purchasers who lack the ability influence suppliers. In this situation, the organisation might not have substantial needs for customer accounting that focuses on customers as a unit of analysis in terms of profitability or valuation of customers (Guilding and McManus, 2002).

Simultaneously, the need for competitor-focused accounting that focuses on competitor cost assessment, competitive position monitoring, strategic costing and strategic pricing might not be emphasized (Guilding, 1999).

However, when facing a higher intensity of competition in various aspects of business such as price competition, product competition, or marketing competition, organisations have to find ways to differentiate their products and services from those provided by competitors (Khandwalla, 1972a; Guilding and McManus, 2002). Therefore, customer accounting and competitor-focused accounting become more important when the organisations face more uncertain environments. This is partially because these types of accounting enable organisations to make future events and their consequences on organisational activities

more predictable through analysing various aspects related to customers and competitors. This helps organisations to implement their plans more effectively and explore new business opportunities (Guilding, 1999; Guilding and McManus, 2002).

In that sense, NFPMs enables organisations to succeed in customer-focused strategies through fastening its response to changes in the external environment (Perera *et al.*, 1997). This could be because NFPMs can provide timely, detailed and future-focused information (Chenhall and Morris, 1986). As such, diversification of NFPMs creates an important formal mechanism for information collection. If the chosen NFPMs are closely connected with financial performance, they enable the senior managers to understand cause-effect relationships or intertwinement of various business areas related to, for example internal business processes, customers, suppliers, and employees on the financial outcome (Chenhall, 2005). Thus, actions can be taken faster when the non-financial information gathered signals any problems in business activities that might cause negative effects on organisational performance (Kaplan and Norton, 1996b). Therefore, it is reasonable to expect that organisations tend to adopt NFPMs when facing higher PEU (Hoque *et al.*, 2001; Lee and Yang, 2011). The relationship between them is stated as follows:

H1: Adoption of NFPMs is positively correlated with PEU

#### ***4.2.3 PEU and the decentralisation of decision-making***

As mentioned in the previous chapter (section 3.2.2), the degree of decentralisation of decision-making typically reflects the structure employed by the organisation, whether it is more mechanistic or organic. The former tends to be employed by organisations operating in a more certain environment while the latter tends to be adopted by those facing uncertain external conditions (Burns and Stalker, 1961; Thompson, 1967; Kalagnanam and Lindsay, 1999; Nahm *et al.*, 2003). A centralised mechanism tends to be employed under a stable condition of external environment with routine technologies because it creates smoothness for organisational operation. This is partially because the organic structure might lead to higher incurred costs due to leaking of authority from higher to lower organisational levels (Waterhouse and Tiessen, 1978). However, the organic structure encourages learning, changes and innovation via the more flexible nature of its formalisation, fewer hierarchical layers of management, decentralised authority to lower levels and higher degree of horizontal communication. These enable

the organisation to respond quickly to changes of customer needs and react timely to competitor's action and behaviours, and to search for new emerging consumer trends (Nahm *et al.*, 2003).

In contrast, when facing higher PEU maintaining a mechanistic structure leads to negative effects because of untimely decision-making, especially when the decisions require an access to employees' knowledge, expertise and skills (Waterhouse and Tiessen, 1978). This structure loses its power in dealing high PEU because the inflexible nature of its formalisation inhibits learning, changes and innovation. Moreover, the hierarchical layer, the highly centralised style of decision-making, and low horizontal communication cause difficulties in the circulation of information flow among different levels of the management. Thus, these engender slowing the decision-making process in terms of responses to market changes (Nahm *et al.*, 2003).

The extant literature suggests that the organisation tends to transform its structure from the mechanistic to the organic in order to deal with increased PEU. Therefore, lower level managers tend to be delegated more decision-making right when organisations face higher PEU (Lawrence and Lorsch, 1967; Thompson, 1967; Chenhall and Morris, 1986; Lee and Yang, 2011). This relationship between PEU and the decentralisation of decision-making is stated as follows:

H2: Decentralisation of decision-making is positively correlated with PEU

#### ***4.2.4 PEU and participation of lower managers in setting targets for firm performance***

The current literature suggests that PEU impacts upon participation in setting targets for firm performance (Shields and Shields, 1998). Agency theorists assume that the existence of participation enables information to transfer from subordinates to superiors. This helps organisations to solve problems related to information asymmetry, which results in better resource allocation and compensation. In a certain environment, top management is capable of obtaining information on all business activities, especially when the organisation is small and geographically concentrated with a narrow range of products. Therefore, participation of lower level managers plays a relatively insignificant role in improving decision-making quality (Shields and Young, 1993). In a

more uncertain environment, lower level managers might possess better job-relevant information concerning labour, material, and technology of their responsible areas. Therefore, their participation creates a mechanism for vertical information sharing, which enhances their job performance and their commitment to the organisation (Parker and Kyj, 2006). Empirical evidence suggests that organisations may experience higher the positive impacts of participation on the budgetary process on managerial, or firm performance under the condition of high PEU compared with that of low PEU. Thus, organisations tend to involve lower level managers in setting targets for organisational performance (Brownell, 1985; Govindarajan, 1986; Chong *et al.*, 2005). The relationship between PEU and participation of lower level managers in setting organisational performance targets is stated as follows:

H3: Participation of lower level managers in setting targets for organisational performance is positively correlated with PEU

#### ***4.2.5 PEU and the interactive use of NFPMs***

Managers can interactively use various elements of PMASs in order to control business strategy to ensure a quick adaptation of the organisation to changes in the external environment (Simons, 1995). For Abernethy and Brownell (1999), an interactive style of usage of budgeting tends to manifest in conditions of high PEU while a diagnostic style tends to use intensively adopted in conditions of low PEU. Matching appropriately these styles was found to positively impact on public hospital performance. An interactive style was particularly appropriate for strategic change. Similarly, Vaivio (1999) suggests that NFPMs provide a powerful vehicle for the organisation to cope with strategic uncertainties given their potential for controlling strategies. These could be achieved through maintenance and enhancement of organisational strategic capacities in terms of market orientation, entrepreneurship, innovativeness, and organizational learning (Bisbe and Otley, 2004; Henri, 2006a). Therefore, managers tend to use NFPMs more interactively when PEU increases. The relationship between PEU and interactive use of NFPMs is stated as follows:

H4: The interactive use of NFPMs is positively correlated with PEU

#### ***4.2.6 PEU and objectivity of performance evaluation and rewards***

The literature suggests PEU has negative effects on the objectivity of performance evaluation and rewards. In other words, the objectivity might reduce when PEU increases (Baiman and Rajan, 1995). Positive effects of using accounting measures for performance evaluation and rewards on job satisfaction when the environment has low complexity was found by Brownell (1987). When an increase in PEU leads to validity of the pre-set performance targets within shorter time periods, comparisons between these targets and actual outcomes might become less effective, especially when the comparisons are used to evaluate individual efforts from functional areas facing different PEU levels (Libby and Lindsay, 2010). This might cause dysfunctional behaviours that can harm the long-term organisational objectives as reported by Merchant (1990). For instance, profit centre managers attempt to meet their required performance targets by pulling profits from the subsequent year into the current year when facing pressures from financial targets. Other numerous side effects are also summarized by Otley (1978) when budgetary targets are used as an objective measures to evaluate performance: (a) job-related tensions, (b) unfair feelings, (c) trust erosion, and (d) budgetary slack (Van den Bos, 2001; Hartmann and Slapničar, 2012). This might explain why a certain level of subjectivity is allowed by an international firm operating in financial services when genetic evaluation policies are applied for evaluating performance of various sub-units operating in different business environments (Jiambalvo *et al.*, 1983). The relationship between PEU and the objectivity of performance evaluation and rewards is stated as follows:

H5: The objectivity of performance evaluation and rewards is negatively correlated with PEU

### **4.3 Impacts of task uncertainty on PMAS in practice**

#### ***4.3.1 Definition of task uncertainty***

Dealing with task uncertainty, a manifesting aspect of technology, which here refers to “actions that individuals perform upon an object with or without the aid of tools or mechanical devices, in order to make some changes in that object”, is understood in terms of the ability to handle exceptions in order to achieve expected task outcomes



(Perrow, 1967, p. 195). Task uncertainty is characterised by the number of exceptional cases and the nature of the process of searching for exceptions. The former refers to unfamiliar or non-routine cases compared to daily tasks while the latter concerns two types of search. Analysable problems can be solved by logical, systematic and analytical search while unanalysable problems requires experience or additional training. Thus, the level of task uncertainty does not only rely on the tasks themselves, but also depends on individuals' understandability and knowledge for handling exceptions-related tasks (Perrow, 1967).

Thus, task uncertainty might be separated into task variety and task analysability (Perrow, 1967). The former refers to the frequency of unexpected and novel events that occur in the process of conducting specific tasks. The probability of achieving expected task outcomes is more likely to be higher under the condition of low task variety compared to that of high task variety. Task analysability refers to how occurred problems are solved by individuals. Highly analysable problems can be solved by following established standard rules, procedures, and directives while highly unanalysable problems require expertise, experiences, training and times. Task outcomes can be achieved with higher probability under the former cases compared to the latter cases (Draft and Macintosh, 1981). Task uncertainty is derived from an increase in internal interdependence between different organisational units. While pooled and sequential interdependences are positively associated with low task uncertainty, reciprocal interdependence is likely to results from high task uncertainty (Thompson, 1967).

#### ***4.3.2 Task uncertainty and the adoption of NFPMs***

Under low task uncertainty, the organisation possesses nearly perfect knowledge of the transformation process (input-output). Expected task outcomes can be achieved through specifying formal procedures, rules, and standard practices. In contrast, quite imperfect knowledge occurs under high task uncertainty. Established rules are inadequate to achieve expected task outcomes, which leads to the ineffectiveness of behavioural control. In this circumstance, output measurement offers a better way of management (Ouchi, 1979). Output measurement enables organisations to monitor their members at a distance rather than under direct supervision. Moreover, this control mechanism

provides individuals with flexibility to achieve their performance targets with their own initiatives (Merchant and Van der Stede, 2003). The relationship between task uncertainty and the adoption of NPFMs is stated as follows:

H6: The adoption of NPFMs is positively correlated with task uncertainty

#### ***4.3.3 Task uncertainty and the decentralisation of decision-making***

Under low task uncertainty, decisions are made by central managers and restricted discretion is delegated to lower managerial levels. Moreover, co-ordination can be achieved through planning or standardization that defines interaction between individuals by rules. However, high task uncertainty requires expertise, skills and experiences of lower managers. Thus, decentralisation of decision-making could result in efficiency of related to mobilization of scarce resources. Additionally, the organisation must employ co-ordination through feedback that allows individuals to alter programmed interactions in the process of carrying out shared tasks (Perrow, 1967; Thompson, 1967; Waterhouse and Tiessen, 1978).

Task uncertainty varies between contexts of different types of technology. Low task uncertainty occurs in mass production organisations because standardization is developed for not only the technical process, but also human behaviours in order to increase predictability. This mode of production is characterised by stable rules and regulations, highly specialised jobs or tasks aimed at routinizing the work, and centralisation of decision-making to reduce variability. In contrast, the organisation that customizes its products into small batches or pursues continuous process production involving the highly mechanised manufacture of a single bulk product faces higher task uncertainty. The non-standardized production requires flexible technical systems, mutual adjustments among operators and close interaction among various departments (e.g. marketing and product development). The continuous process production requires highly skilled indirect workers to ensure the smoothness of tightly coupled operations. Therefore, exceptional problems must be solved quickly to ensure organisational efficiency. As a result, decentralisation of decision making enables the organisation to exploit lower level managers' knowledge and improve the effectiveness of coordination (Kalagnanam and Lindsay, 1999). Hence, organisations that face higher task uncertainty

tend to decentralise decision-making to lower levels of management. The relationship between task uncertainty and decentralisation of decision making is stated as follows:

H7: Decentralisation of decision making is positively correlated with task uncertainty

#### ***4.3.4 Task uncertainty and the participation of lower managers in setting targets for organisational performance***

Being similar the argument concerning impacts of PEU on the participation of lower level managers in setting targets for organisation performance, task uncertainty required knowledge and expertise of lower managers to solve problems related to exceptions of internal activities rooted in selected organisational technology rather than external factors (Shields and Young, 1993). Therefore, organisations that face higher task uncertainty tend to involve lower level managers in setting targets for organisational performance than their counterparts. This relationship between is stated as follows:

H8: Participation of lower managers in setting targets for organisational performance is positively correlated with task uncertainty.

#### ***4.3.5 Task uncertainty and the interactive use of NFPMs***

Under low task uncertainty, individuals can co-operate through standardization with well-established routines or rules. Thus, NFPMs tend to be used diagnostically to monitor performance. However, co-operation by plan and by mutual adjustment are required to ensure achievement of organisational objectives under high task uncertainty. The former involves managing interdependent units rather than dependent ones while the latter require more communication across organisational levels (Thompson, 1967). For Macintosh and Daft (1987), pooled departments that co-ordinate through standardization intensively uses standard operating procedures and policies to guide management activities and handle operational situations. Budgeting information and statistical reports are not used so much for co-ordinating, measuring, or monitoring departmental activities. In contrast, this information becomes important in reciprocally interdependent departments cooperating by feedback. Similarly, Williams *et al.*, (1990) found that educational organisations holding reciprocal interdependence require interpretation, interaction between superiors and subordinates, especially when

organisational performance is characterised by innovation and quality. These imply importance of non-financial information as an integrative liaison device to facilitate communication within the organisation, especially when more meetings and spontaneous communication are needed. In this sense, NPFMs help the organisation to successfully implement its business strategy when flexible production through non-standardizing products is employed to deal with environmental uncertainty (Merchant, 1984; Abernethy and Lillis, 1995). The relationship between interactive use of NPFMs and task uncertainty is stated as follows:

H9: The interactive use of NPFMs is positively correlated with task uncertainty.

#### ***4.3.6 Task uncertainty and objectivity in performance evaluation and rewards***

Objectivity in performance evaluation and rewards can be achieved under low task uncertainty due to the possibility of establishing unambiguous performance criteria (Hartmann and Slapničar, 2009; Hartmann and Slapničar, 2012). However, achievement of individual outcomes might be influenced by the occurrence of exceptional cases and task interdependence (Macintosh and Daft, 1987; Bouwens and Abernethy, 2000; Gerdin, 2005c). For example, Van Veen-Dirks (2010) found that the importance attached to accounting measures and NPFMs for evaluating and rewarding production managers is significantly influenced by departmental interdependence. The importance attached to FPMs for rewards reduces under high interdependence whereas the importance attached to NPFMs for periodic evaluation increases. This suggests that objectivity might give rise to employees dissatisfaction about procedural justice if the contextual factors are not taken into consideration (Diekmann *et al.*, 2004). Thus, subjective judgements on performance evaluation and rewards may be used as a means to enhancement of the perception of fairness under high task uncertainty (Hartmann and Slapničar, 2012). The relationship between objectivity in performance evaluation and rewards is stated as follows:

H10: Objectivity in performance evaluation and rewards is negatively correlated with task uncertainty.

## **4.4 PMAS practices and organisational performance**

### ***4.4.1 Definition of organisational performance***

Organisational performance is concerned with the question of how well an organisation is doing and it can be measured in different ways Scott and David (2007).

Organisational theorists point out three types of indicators that may be used to evaluate organisational performance: outcomes, processes, and structure (Scott and David, 2007). The outcome concerns assessment of firm performance via specific features of final products or services such as product quality. Processes focus on the quantity and quality of activities carried out by the organisation. Structure pays attentions to organisational capacity to ensure the effectiveness of other performance dimensions. The two latter types of indicators do not directly indicate the outcomes. Rather, they are more concerned with the internal control processes in place to make firm performance more manageable (Scott and David, 2007).

A common agreement shared by various researchers and practitioners is that the organisation performance has multiple dimensions (e.g. Kaplan and Norton, 1992; 1996c; Hoque and James, 2000; Hall, 2008). Shareholder value is typically considered a primary criterion to assess firm performance from a shareholder perspective. Creating values for other stakeholders such as customers or employees is considered a secondary objective that enables the organisation to achieve its primary objective. Therefore, organisational performance is also reflected through both financial and non-financial indicators (Atkinson *et al.*, 1997). In line with these studies, this study takes four dimensions of organisational performance suggested by (Kaplan and Norton, 1996b), namely financial perspective, customer perspective, internal business process perspective and growth and learning perspective, into consideration.

### ***4.4.2 PMAS practices and organisational performance***

According to Franco-Santos *et al.* (2012), PMAS practices impact on performance at different organisational levels via their influences on organisational capacities and people's behaviour as presented in Figure 4.2. The former refers to employees' cognitive mechanisms (e.g. perceptions) and actions (or reactions) while the latter is concerned with activities, specific processes or competences that allow the organisation to gain and perform their competitive advantages.

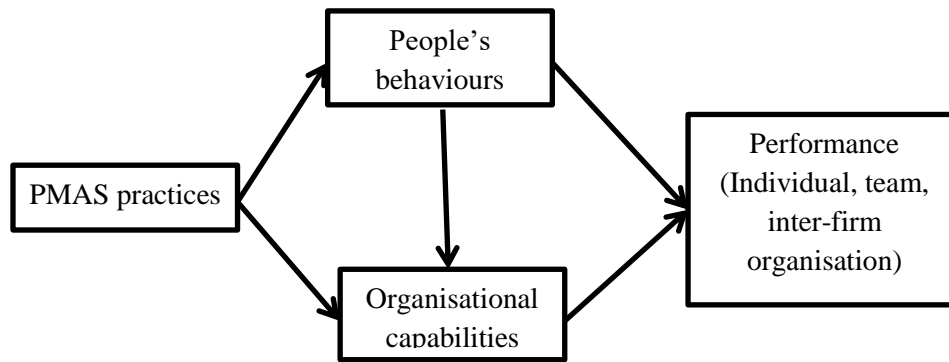


Figure 4.2: Mechanisms through which PMAS practices impact organisational performance, adapted from Franco-Santos *et al.* (2012)

The relationship between each PMAS practice and performance might be explained differently by various theoretical perspectives, which is discussed in the following sections.

#### ***4.4.3 The adoption of NFPMs and organisational performance***

The adoption of NFPMs can enhance organisational capacities thanks to their abilities in facilitating communication, discussion and debate across organisational levels about the business strategies, critical success factors and plans. As a result, these practices can foster innovativeness, organisational learning, entrepreneurship and market orientation (Henri, 2006a). Moreover, the organisation can activate both feed-back and feed-forward control for assessing actual outcomes, and formulating and using predicted outcomes. By doing this, the decisions-making process can also be facilitated (Grafton *et al.*, 2010). This could be a reason for a significant association between incorporation of customer-based-NFPMs in the incentive contracts and future financial performance from analysis of time-series data for 72 months from 18 hotels managed by a hospitality firm found by Banker *et al.* (2000).

In terms of behaviour, the adoption of NFPMs results in an increase of managers' and employees' intrinsic motivation for carrying out their job for several reasons. Firstly, NFPMs are believed to drive future financial performance as reflections of current managerial efforts (Kaplan and Norton, 1992). This directs and motivates agents towards principals' goals (Banker *et al.*, 2000). Secondly, managers and employees obtain job-relevant information with clear and specific objectives and feedback information, which increases goal commitment (Burney and Widener, 2007). Thirdly, the adoption of NFPMs

enables managers and employees to clarify their duties, authorities and responsibilities for making effective decisions and behaving appropriately (Burney and Widener, 2007; Hall, 2008). Fourthly, the adoption of NFPMs may give managers and employees feelings of psychological empowerment. These feelings are created when an individual values their job based on their own standards, believes in their competence and self-determination. This can impact the job's outcome in the context of jobs. Fifthly, the adoption of NFPMs enhances both distributive justice and procedure justice. The former is concerned with the balance between the delivered effort and the perceived amount of the rewards while the latter refers to consistency in the processes through which the efforts are evaluated and rewarded. These perceptions can be developed if NFPMs that are used for incentive purposes reflect business strategies and real people's efforts (Burney *et al.*, 2009). The relationship between adoption of NFPMs and organisational performance is stated as follows:

Hypothesis 11: Organisational performance is positively correlated with the adoption of NFPMs.

#### ***4.4.4 Decentralisation of decision-making and organisational performance***

The small organisation with a narrow range of products operating in concentrated geographical areas can maintain its efficiency through centralisation. In this situation, the organisation typically operates in an optimal setting that is governed by impersonal market interactions. Therefore, issues that relate to the organisational structure and internal control are not required. In contrast, decentralization of decision-making is needed when the organisation becomes large in size, diverse in products and various geographic areas, especially under the existence of free market information for optimizing behaviour (Zannetos, 1965; Thompson, 1967; Shields and Young, 1993). For Zannetos (1965), decentralized decision-making helps the organisation to achieve its objectives smoothly though classifying overall organisational objectives into various dimensions and clarifying these dimensions at different hierarchical levels. By doing so, this practice is believed to improve organisational performance for several reasons. Firstly, decentralized decision making results in faster reactions in particular situations, especially when the ultimate outcomes depend on timely decisions (Zannetos, 1965). For instance, Nahm *et al.* (2003) found that an delegation of decision-making to the

shop-floor level results in shortening time related to manufacturing practices<sup>7</sup>. Secondly, decentralization of decision-making creates psychological motivation due to benefits of compatible interests in the organisation, which results in better individual performance (Zannetos, 1965; Richardson *et al.*, 2002). Numerous researchers in the fields of human relations and social psychology claim that “equalitarian structures offer more satisfaction to the members of an organisation than authoritarian structures” (Zannetos, 1965, p. 64). In this way, cooperative behaviours and mutual benefits between management and workers are promoted (Zannetos, 1965; Richardson *et al.*, 2002). The relationship between organisational performance and decentralisation of decision-making is stated as follows:

Hypothesis 12: Organisational performance is positively correlated with the decentralization of decision-making

#### ***4.4.5 Participation of lower level managers in setting targets for organisational performance and organisational performance***

The literature suggests positive effects of participation on organisational performance (Wagner III, 1994). Agency theorists argue that participation of lower level managers in the decision-making processes could exploit their private information. In this way, the organisation can overcome the problems caused by information asymmetry (Shields and Young, 1993; Parker and Kyj, 2006). Moreover, the participation creates intrinsic motivation for individuals in different ways. Firstly, the literature on goal setting theory points out that individuals tend to perform better when targets are specific, clear, and measured. Through participation, managers have clear direction to carrying out their tasks (Franco-Santos *et al.*, 2012). Secondly, the participation forms perceptions of lower level managers on distributive and procedural justice in relation to their performance. Lindquist (1995) found that the participation in the process of setting targets even only giving voice can result in better task satisfaction and better task performance. Another way that link the participation and job satisfaction and

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<sup>7</sup> Manufacturing practices might consist of six practices. Firstly, re-engineering setups refers taken efforts to reduce setup time. Secondly, cellular manufacturing refers to production of units in a product-oriented layout. Thirdly, quality improvement efforts refer to development of methods to reduce defects and enhance quality. Fourthly, preventive maintenance refers to frequency of equipment maintenance. Fifthly, dependable supplier refers to facilitation of suppliers for customer needs regarding service quality. Sixthly, pull production refers to demand for production from the next station or ultimate from customer



performance is through reduction of role ambiguity (Chenhall and Brownell, 1988). Not only managers, but employees can participate in “conceptualisation of performance measures, defining the measures, identifying required data, adopting IT-systems, designing graphs and tables for the presentation of the measures, and even producing the periodic performance reports” (Groen *et al.*, 2012, p. 120). In doing this, individuals might enhance commitment with their organisation, or their tasks, which aligns with organisational goals and objectives (Franco-Santos *et al.*, 2012). The relationship between organisational performance and participation of lower managers in setting targets for organisational performance is stated as follows:

Hypothesis 13: Organisational performance is positively correlated with the participation of lower level managers in setting targets for organisational performance.

#### ***4.4.6 Interactive use of NFPMs and organisational performance***

The reason for positive effects of interactive use of NFPMs on organisational performance lies in the nature of interactive use that helps the organisation to ensure strategic validity in changing conditions. This practice offers a shared language for employees, and managers across hierarchical levels in the process of strategy implementation (Simons, 1995). Focusing on budgeting, Abernethy and Brownell (1999) found an interactive style of budgetary use is intensively used by the organisation to deal with strategic changes, and this matching leads to better organisational performance. Additionally, the interactive use creates a mechanism for enhancement of organisational capacities regarding market orientation, entrepreneurship, innovativeness and organisational learning. These contribute to continuous improvement of the organisation (Henri, 2006a). The relationship between organisational performance and the interactive use of NFPMs is stated as follows:

Hypothesis 14: Organisational performance is positively correlated with interactive use of NFPMs

#### ***4.4.7 Objectivity of performance evaluation and rewards and organisational performance***

The organisational productivity can be improved via an incentive effect to extract the right amount of effort from individuals (Gielen *et al.*, 2010). Their performance is

highly correlated with their perceptions about fairness within the organisation. Perceiving a relatively high fairness may have positive effects on performance (Lindquist, 1995; Burney *et al.*, 2009). Thus, an objective style in evaluating and reward performance significantly contribute to enhancement of perception about fairness of organisational members, which may results in better performance of individuals (Burney *et al.*, 2009). High subjectivity in evaluating and rewarding performance caused inaccuracies in differentiating among individuals. Consequently, wrong decisions related to personnel and future incentives might be made (Moers, 2005). This could erode perception about fairness within organisation and prevent people from devoting their efforts in perform their tasks (Burney *et al.*, 2009).

The extant literature suggests that people are strongly concerned about fairness when aspects of their worlds become more uncertain (Lind and van den Bos, 2002).

“Uncertainty arises whenever a person is unable to predict the future or there is an inconsistency between different cognitions, cognitions and experiences, or cognitions and behaviour” (Diekmann *et al.*, 2004, p. 239). In this situation, fairness judgment becomes the key to manage uncertainty (Lind and van den Bos, 2002; Diekmann *et al.*, 2004). Focusing in uncertainty about performance standard and appropriate behaviours, Diekmann *et al.* (2004) found a moderating effect of work-related uncertainty on a positive relationship between fairness and job satisfaction. That is, fairness has stronger positive effects on job satisfaction in high uncertainty compared to low uncertainty. Therefore, an absolute objective style in evaluating and rewarding performance might cause feelings of unfairness when work-related uncertainty increases (Govindarajan, 1984; Hartmann and Slapničar, 2012). This may reduce job satisfaction and organisational commitment of individuals, which leads to potential for poor individual performance, then organisational performance (McFarlin and Sweeney, 1992). The relationship between the objective style and organisational performance is stated as follows:

Hypothesis 15: Organisational performance is negatively correlated with the objectivity of performance evaluation and rewards.

#### **4.5 Moderating effects of PEU and task uncertainty on the relationships between PMAS practices and organisational performance**

The moderating effects of PEU and task uncertainty on the relationships between PMAS practices and organisational performance are strongly suggested by prior studies. Although the organisation might face different levels of PEU and task uncertainty, its performance relies not only on PMAS practices themselves, but also on interactions between these two contingent variables and PMAS practices (Hartmann and Moers, 1999; Gerdin and Greve, 2004; Burkert *et al.*, 2014). Regarding PEU, Govindarajan (1984) examined relationships between subjective performance evaluation and rewards systems, PEU and effectiveness of business units. The author found a stronger relationship between PEU and the subjective style in more effective business units than in less effective one. For Govindarajan (1986), budgetary participation of responsibility-centre managers appears to contribute more to managerial performance when the organisation operating in high PEU than in low PEU. Findings provided by Gul and Chia (1994) suggested positive effects of high degree of decentralisation on managers' performance in high PEU. Based on the same logic, this study is going to explore whether interactions between PEU and PMAS practices result in better organisational performance, which is stated in the following hypotheses:

Hypothesis 16: An interaction between PEU and PMAS practices has positive impacts on organisational performance

Hypothesis 16<sub>a</sub>: An interaction between PEU and the adoption of NFPMs has a positive effect on organisational performance.

Hypothesis 16<sub>b</sub>: An interaction between PEU and participation of lower managers in setting targets for organisational performance has a positive effect on organisational performance.

Hypothesis 16<sub>c</sub>: An interaction between PEU and decentralisation of decision-making has a positive effect on organisational performance.

Hypothesis 16<sub>d</sub>: An interaction between PEU and interactive use of NFPMs has a positive effect on organisational performance.

Hypothesis 16<sub>e</sub>: An interaction between PEU and objectivity in performance evaluation and rewards has a negative effect on organisational performance.

The prior studies suggest that effectiveness of various employed management techniques relies on levels of task uncertainty faced by the organisation. In the budgetary setting, job-related tensions, responses to stressful situations, between lower managers and their superiors appears to reduce if budgetary participation is compatible with the level of task uncertainty (Brownell and Hirst, 1986). These tensions are increased if performance evaluation and promotion of lower managers are fundamentally based on accounting or quantitative information in the situation of high task uncertainty (Hirst, 1983). In line with these studies, Mia and Chenhall (1994) found that interactions between functional areas (marketing versus production) and the extent of external, non-financial, and future-oriented accounting information have effects on managerial performance. These findings suggest a moderating role of task uncertainty on effectiveness of PMAS practices perceived by the organisation. Therefore, it is expected that task uncertainty might play moderating role in the relationship between PMAS practices and organisational performance as being stated by following hypotheses:

Hypothesis 17: An interaction between task uncertainty and PMAS practices has positive impacts on organisational performance

Hypothesis 17<sub>a</sub>: An interaction between task uncertainty and the adoption of NFPMs has a positive effect on organisational performance.

Hypothesis 17<sub>b</sub>: An interaction between task uncertainty and participation of lower managers in setting targets for organisational performance has a positive effect on organisational performance.

Hypothesis 17<sub>c</sub>: An interaction between task uncertainty and decentralisation of decision-making has a positive effect on organisational performance.

Hypothesis 17<sub>d</sub>: An interaction between task uncertainty and interactive use of NFPMs has a positive effect on organisational performance.

Hypothesis 17<sub>e</sub>: An interaction between task uncertainty and objectivity in performance evaluation and rewards has a negative effect on organisational performance.

#### **4.6 Organisational culture**

The previous three sections formulated seventeen hypotheses concerned with impacts of PEU and task uncertainty on five PMAS practices, impacts of these practices on organisational performance as well as effects of interactions between PMAS practices

and the aforementioned contingent variables on organisational performance. These hypotheses will be tested in the quantitative phase of study. In the qualitative phase, the study aims to provide further explanations for the quantitative findings and understand the role of organisational culture in shaping PMAS practices in Vietnam that emerges from the case study. Thus, this section will discuss various aspects of organisational culture, its impacts on PMAS practices and organisational culture-related change resistance.

#### ***4.6.1 Definition of organisational culture***

Culture is defined as “the collective programming of the mind which distinguishes the members of one group from another” (Hofstede, 1980, p.25). In this sense, organisational culture refers to shared beliefs, values, and assumptions among organisational members that shape their behaviours and its artefacts (Bhimani, 2003; Henri, 2006b). On the one hand, organisational culture is strongly associated with national culture (O'Connor, 1995). Hofstede (1980) suggests that cultures in Eastern countries are characterised by high uncertainty avoidance, high collectivism and high power distance compared with Western cultures. Uncertainty avoidance refers to a degree to which a society is tolerant towards ambiguity or uncertainty. Individualism (versus collectivism) reflects the degree to which individuals tight their self-interests to interests of their groups, or that of society. Power distance refers to the degree to which the society accepts an unequal distribution of power (Hofstede, 1980). On the other hand, the organisational culture reflects shared knowledge and competence of an organisation (Van Den Berg and Wilderom, 2004). Practices of organisational cultures differ from one organisation to another because of organisational environment, organisational characteristics, and leadership styles (Merchant *et al.*, 1995).

In terms of values, the organisation culture might emphasise the value of control rather than the value of flexibility (Quinn and Rohrbaugh, 1983; Bhimani, 2003; Henri, 2006b). The former refers to stability, rigidity and conformity. This culture emphasises the control of the external environment, productivity, achievement of well-established criteria. Moreover, the mechanistic structure is considered a mean for organisation to achieve its internal efficiency. In contrast, the value of flexibility refers to spontaneity, change, openness, adaptability and responsiveness. This emphasises the cohesiveness of organisational members, participatory decision-making and support among co-workers.

Employee creativity and exploitation of new resources are considered means for organisations to make changes in the process of adaptation to external environment. Organisational leaders support those values via empowerment, mentoring and support for team work (Bhimani, 2003; Henri, 2006b). The dominant cultural value may lead to variations in the usage of performance measures. For instance, Henri (2006b) found that flexibility-based culture uses performance measures for organisational attention and supports strategic decision-making to a greater extent than in a control-based culture

Regarding practices, the organisation might employ one of four cultural practices namely goal orientation, rule orientation, innovation orientation and support orientation (Van Muijen *et al.*, 1999). Firstly, goal orientation emphasises rationality, performance indicators, accomplishment, accountability and contingent rewards. This practice focuses on accomplishment of the performance targets rather than the process of carrying tasks out (Hofstede *et al.*, 1990, p. 302). Secondly, rule orientation emphasises respect for authority, rationality of procedures, work divisions, hierarchical structure and top-down communication. Thirdly, innovative culture is characterised by creativity, openness to change, anticipation, experimentation, the expectation of commitment and involvement. Fourthly, support-oriented culture emphasises participation, co-operation, mutual trust, team spirit and individual growth. Employees are encouraged to express ideas about their work and feelings about each other. Informal contacts in the decision-making process and commitment of individual employees are expected.

#### ***4.6.2 Impacts of organisational culture on PMAS practices***

Organisational culture plays a significant role in shaping various aspects of PMAS practices (Chenhall, 2003; Ferreira and Otley, 2009). High power distance culture expects reverence for hierarchy and authority, acceptance of power inequality, and attachment of people to their appropriate place. Thus, autocratic leadership tends to be adopted (Hofstede, 1980; Harrison, 1992). Moreover, employees appear to react to participation in unfavourable ways since high power distance culture values inequality in regard to this aspect of power and the notion of non-sharing power between superiors and their subordinates (Lau and Caby, 2010). In contrast, equality between superiors and their subordinates are valued in low power distance cultures. Thus, subordinates are expected and willing to participate in the process of decision-making (Hofstede, 1980). Consequently, high power distance culture might lead to the employment of a

mechanistic structure and low participation of lower level managers and employees compared with low power distance culture that favours organic structure and encourages participation.

Previous studies suggest that positive effects of PMAS practices on organisational performance are not the same across national culture (Harrison, 1992; Harrison, 1993; Tsui, 2001; Williams and Seaman, 2001; Chenhall, 2003; Lau and Caby, 2010). For instance, managers of low distance power culture such as Australian managers appears to be motivated by participating in decision-making because they know what is expected from their jobs, which results in their job satisfaction. However, these effects seems to be very limited for managers of high power distance culture such as French or Chinese managers (O'Connor, 1995; Tsui, 2001; Lau and Caby, 2010).

People of individualist cultures are motivated if their voice, opinions and ideas are listened to and valued by their organisations. This enables people to express their self and identity. However, a highly collectivist culture tends to encourage individuals to commit to a group and to see themselves in network relationships. Thus, people might not feel so individually important to have their voice in the decision-making process at the workplace (Harrison, 1992; Harrison, 1993). For instance, Chow *et al.* (1998) find that managers do not feel individually important when providing private information at face-to-face meeting with their superiors. Rather, they are afraid that misrepresentation of private information may lead to loss of face and negative effects on their social position. These cultural differences might be used to explain a variation of job satisfaction among managers across countries. For example, using accounting measures and budgets in performance evaluation might results in better job satisfaction for managers of collectivist culture than those of individualist culture. A reason for this lies in the notion of performance comparison through which managers may gain respects from their superiors or peers in collectivist culture. This notion might not really matter for people of individualist culture because they may prefer to do better for themselves rather being better than the other (Harrison, 1993).

#### ***4.6.2 Organisational culture and change resistance***

Organisational culture could be considered a barrier for organisational changes and PMAS changes in particular. This is partially because of a reflection of organisational

culture via accounting and control systems regarding language, or symbolic content (Markus and Pfeffer, 1983). Therefore, a strong resistance might be occurred if cultural aspects or elements embedded in new PMAS practices are not are not corresponded to dominant cultural values of the adopters. As Ansari *et al.* (2010) argue, a cultural fit is important for diffusing new ideas or practices into new contexts. This fit depends on a degree to which characteristics of diffusing practices being compatible with cultural values, belief and practices of potential adopters. Thus, failure of any forms of management accounting change might not only lie in the techniques themselves, but also in cultural resistance (Malmi, 1997). According to Ansari *et al.* (2010), if misfit occurs, new practices tend to be modified by first adopters in order to gain cultural legitimacy before they diffuse to the next generation of adopters. This might be a reason why several forms of management accounting change might be adopted more successfully than other forms (Sulaiman and Mitchell, 2005).

#### **4.6 Summary**

This chapter has elaborated a conceptual framework for the study. This framework is translated into research hypotheses concerned with the impact of contingent variables, namely PEU and task uncertainty, on PMAS practices and effects of these practices on organisational performance, as well as effects of interactions between PMAS practices and the aforementioned contingent variables on organisational performance. These hypotheses will be tested in the quantitative phase of study. This chapter further discusses relationships between organisational culture and PMAS practices and cultural resistance to organisational changes in order to form an extended analytical framework for the case study at the second phase of study. The rationale for the research design will be presented in the following chapter.



## **Chapter 5: Research Methodology**

This chapter aims to describe and explain the rationale for the research design in relation to answering the research questions. The chapter thus helps to introduce and justify the research methods employed here. In this respect, the employment of mixed methods in the analysis is reflected across the various phases of the study. In the first stage of empirical analysis, an online questionnaire survey was used to obtain, in relation to Vietnam, quantitative data to draw characteristics of PMASs, the impacts of PEU and task uncertainty on PMAS characteristics, and the impacts of PMAS practices on organisational performance. In the second stage, case study analysis was conducted to understand mechanisms through which changes in PMASs enhance organisational performance. The case study approach also provides an opportunity to understand how organisational culture leads to resistance to changes in PMASs in the context of Vietnam.

This chapter is organised into nine sections. Discussion of research design indicating its importance to the study is presented in the first section, which leads to reflection, in the second section, upon research philosophy, ontology and epistemology and elaborates upon research paradigms. The chapter then goes on to discuss the array of methods that have thus been supported and made legitimate in relation to survey design, including details on measurement issues and quantitative data analysis, and case study analysis.

### **5.1 Research design**

Research design is defined by Yin (1989, p. 28) as follows:

“A research design is an action plan for getting from here to there, where ‘here’ may be defined as the initial set of questions to be answered, and ‘there’ is some set of conclusions (answers) about these questions. Between ‘here’ and ‘there’ may be found a number of major steps, including collection and analysis of relevant data.”

As such, research design refers to an underlying logic of a work plan which ensures that “evidence obtained enables us to answer the initial question as unambiguously as possible”(De Vaus, 2001, p. 9). Designing research is considered a process of making key decisions before the study is conducted in the context of planning the study (Blaikie, 2000). This entails specifying the type of evidence needed to answer research questions in a convincing way (De Vaus, 2001). A research design not only provides a framework of data collection, but also give guidance for data analysis (Bryman, 2004). Therefore, research design enables researchers to anticipate key challenging aspects of their studies

and respond to them in an appropriate and integrated manner (Blaikie, 2000). Research design, a logical structure of enquiry, is not synonymous with research methods (in the sense of particular quantitative and/or qualitative methods employed in research such as a test using a technique of statistics or a set of interviews). The same research methods can be employed in different types of research design. Understanding a variety of possible research designs enables researchers to enhance the quality of their studies (Laughlin, 1995; De Vaus, 2001)

The underlying reason for employing a research design is associated with philosophical assumptions including in relation to ontology, epistemology, methodology (in the sense of philosophy or issues of method) and methods (Blaikie, 2000; Bryman, 2004). For Grix (2002), these building blocks of research drive or influence the sources of data collected according to his framework delineating a directional relationship between them (see Figure 5.1). According to Gallhofer *et al.* (2013), the philosophical assumptions in relation to methods have important influences on methods used and how the methods are valued both directly and also through the mediation of the topic (or question/set of questions) focused upon and how that topic is seen.

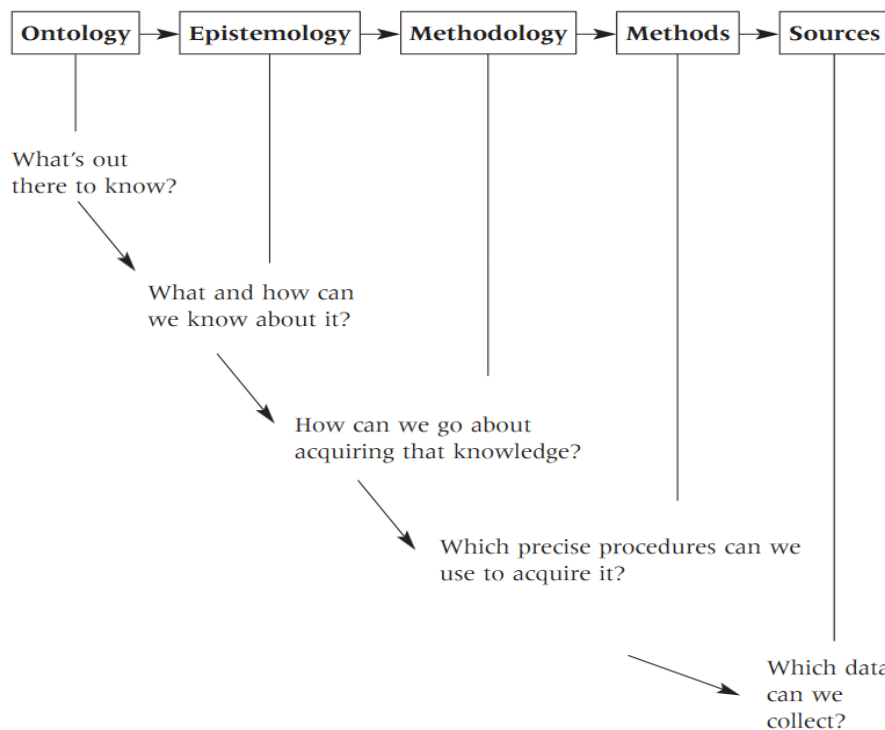


Figure 5.1: The interrelationship between the building blocks of research, taken from Grix, (2002, p. 180)

Philosophical assumptions may be considered a starting point (explicit or otherwise implicit, see Laughlin, 1995) for doing research in social science (Blaikie, 2000; Bryman, 2008). For Easterby-Smith et al. (2002, p. 27):

“There are at least three reasons why an understanding of philosophical issues is very useful. First, it can help to clarify research designs. Second, knowledge of philosophy can help the researcher to recognise which designs will work and which will not. It should enable a researcher to avoid going up too many blind alleys and should indicate the limitations of particular approaches. Third, knowledge of philosophy can help the researcher identify, and even create, designs, that may be outside his or her past experience. And it may also suggest how to adapt research designs according to the constraints of different subject of knowledge structures.”

Chua (1986) suggests that reflection on the issues can engender new research questions or new ways of looking at research questions. Sharing the same concern, Laughlin (1995) stresses that empirical research would benefit from a more comprehensive understanding of the philosophy of methods.

The importance of the philosophical assumptions for understanding approaches to theory development or research in the social sciences is emphasised by Burrell and Morgan (1979). In their work, philosophical assumptions about the nature of social science and society provide a foundation for classification of theory in the social sciences into different paradigms. Their work has been influential in accounting and management research.

## **5.2. Paradigms for the analysis of theory in the social sciences**

Burrell and Morgan (1979) propose a framework for the analysis of theory (they focus on theories of organisation but their work has a more general reference) based on an argument concerning the nature of social science and society. That is, “all theories of organisation are based upon a philosophy of science and a theory of society” (p.1). Their framework is a simplification (like all classification schemes) of debates in this area (e.g. Bernstein, 1976). The framework consists of four paradigms, namely “radical humanist”, “radical structuralist”, “interpretive” and “functionalist”, which are formed by two dimensions. The first dimension concerns subjectivity versus objectivity and the second one concerns what they characterise as “regulation” versus “radical change”.

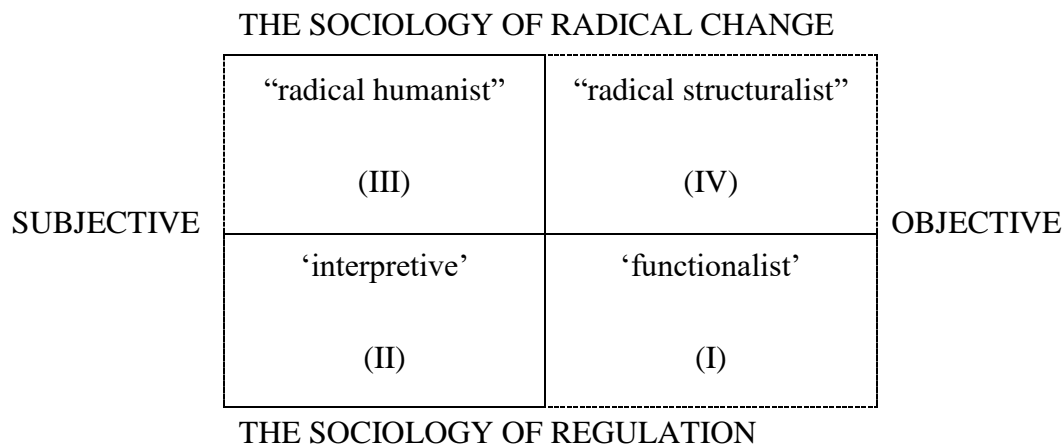


Figure 5.2: A framework for analysing social science, taken from Burrell and Morgan (1979, p. 22)

Regarding the horizontal axis, the authors argue that subjects are approached by all social scientists via their explicit or implicit assumptions about the nature of social science. Those assumptions provide at their limits two extreme views of social reality: subjectivity versus objectivity. Each extreme is a product of opposite views on ontology (nominalism versus realism), epistemology (anti-positivism versus positivism), human nature (voluntarism versus determinism) and methodology (ideographic versus nomothetic). Objectivists advocate ontology of realism, epistemology of positivism, human nature of determinism and nomothetic methodology. Objectivists assume reality is objective in nature. It is given “out there” in the world (Burrell and Morgan, 1979; Blaikie, 2000; Bryman, 2004). Knowledge itself is hard, real and can be transmitted in tangible form. Hence, only phenomena confirmed by the senses are taken into consideration. Principles and methods of conventional natural science are applied to study social reality. An epistemology of positivism focuses on laws of social phenomena via gathered facts and the application of the principle of deduction to generate testable hypotheses from theories (Bryman, 2004). Human nature is another assumption proposed by Burrell and Morgan (1979) associated with ontological and epistemological ones. Objectivists emphasise a passive position of the human being and their experiences are considered products of the environment. Those three assumption results in an emphasis in research upon - a tendency there to prefer - systematic protocol and technique, adoption of quantitative strategies and the using of multiple cases (large samples) as a way of obtaining knowledge (Burrell and Morgan, 1979; Blaikie, 2000; Grix, 2002; Bryman, 2004).

In contrast, subjectivists assume that reality is not independent and separate from the mind of social actors. Rather it is the product of ones' mind. Therefore, knowledge exists in a softer form. Subjective meanings rely on particular experience and the spiritual uniqueness of social actors. Subjectivists emphasise active and creative roles of human beings as creators of their environments. As a result, those assumptions result in an emphasis on subjective meanings given by social actors, and a tendency to prefer the employment of qualitative research strategy, using a small number of in-depth cases, and investigating the meanings of social phenomenon via interviews (Burrell and Morgan, 1979; Blaikie, 2000; Grix, 2002; Bryman, 2004).

They also argue that the nature of society is based upon assumptions about its underlying unity and cohesiveness: "regulation" versus "radical change". The former provide explanations for the maintenance of the society as an entity. As such, "regulation" emphasises the status quo, social order, social integration and cohesion, solidarity, need satisfaction, and spontaneous agreement of opinion. In contrast, the basic concern of "radical change" is underlying conflict or contradiction in the social structure leading to radical changes in society. The society is viewed in terms of radical change, structural conflict, and modes of domination, contradiction, emancipation, deprivation, and potentiality. Laughlin (1995) usefully articulates this in terms meaningful for general analysis: he sees the researcher to be either more committed to radical change (critical) or more committed to the status quo (conservatism).

Burrell and Morgan (1979, p. 23) describe their framework as follows:

"It will be clear from the diagram that each of the paradigms share a common set of features with its neighbours on the horizontal and vertical axes in terms of one of the two dimensions but is differentiated on the other dimension. For this reason they should be viewed as contiguous but separate – continuous because of the shared characteristics, but separate because the differentiation is of sufficient importance to warrant treatment of the paradigms as four distinct entities. The four paradigms define fundamentally different perspectives for the analysis of social phenomena. They approach this endeavour from contrasting standpoints and generate quite different concepts and analytical tools...Each set of *assumptions* identifies a quite separate social-scientific reality. To be located in particular paradigms is to view the world in a particular way...The four paradigms are mutually exclusive. They offer alternative views of social reality, and to understand the nature of all four is to understand four different views of society. They offer different ways of seeing" (p.24-25).

### ***5.2.1 The functionalist paradigm***

The functionalism (Quadrant I) in Figure 5.2 is rooted in objectivism and the sociology of regulation. Burrell and Morgan (1979, p. 26) state that: “(T)he functionalist approach to social science tends to assume that the social world is composed of relatively concrete empirical artefacts and relationships which can be identified, studied and measured through approaches derived from the natural sciences”. Being distanced from the subject matter through the rigour of the scientific method in the research process is advocated by functionalists. Therefore, models and methods of natural science are applied to study human affairs (Burrell and Morgan, 1979). The functionalist paradigm emphasises the rules of formal logic, the rules of “hypothetico-deductive logic” and four requirements for the theoretical propositions to satisfy (falsifiability, logical consistency, relative explanatory power, and survival). This paradigm is closely associated with hypothesis testing, inferential statistics, mathematical analysis, and experimental and quasi-experimental design (Lee, 1991).

### ***5.2.2 The interpretive paradigm***

The interpretive paradigm (Quadrant II) in Figure 5.2 is characterised by subjectivism and the sociology of regulation. Sharing assumptions with functionalists about the nature of society, subjectivists reject the problems of conflict, domination, contradiction and potentiality for change. Rather, they assume order, cohesion and integration of the world of human affairs. However, “...the interpretative paradigm is informed by a concern to understand the world as it is, to understand the fundamental nature of social world at the level of subjective experience. It seeks explanation within the realm of individual consciousness and subjectivity, within the frame of reference of the participant as opposed to the observer of action” (Burrell and Morgan, 1979, p. 28). The counter arguments of subjectivists to functionalists are that applied methods of natural science are inadequate to study social reality (Lee, 1991, p. 347) as follows:

“The same physical artefact, the same institutions or the same human action, can have different meanings for different human subjects, as well as for the observing social scientists. The observing social scientists must, among other things, interpret this empirical reality in terms of what it means to the observed people. In accepting these inter-subjectively created meanings as an integral part of the subject matter that he or she is studying, the social scientist must collect facts and data describing not only purely objective, publicly observable aspects of human behaviours, but also the subjective meaning this behaviour has for the human subjects themselves”

Therefore, this approach is associated with ethnography, hermeneutics, phenomenological approaches and the in-depth case study (Lee, 1991).

### ***5.2.3 The radical humanist paradigm***

The radical humanist paradigm (Quadrant III) in Figure 5.2 is located between subjectivism and the sociology of radical change. While holding a subjective standpoint on the nature of social science as subjectivists, the scientist here assumes the existence of numerous contradictions embedded in the social structure. The characteristic of the paradigm is summarised by Burrell and Morgan (1979, p. 32) as follows:

“One of the most basic notions underlying the whole of this paradigm is that the consciousness of man is dominated by the ideological superstructures with which he interacts, and that these drive a cognitive wedge between himself and his true consciousness...It is a brand of social theorising designed to provide a critique of the status quo. It tends to view society as anti-human and it is concerned to articulate ways in which human beings can transcend the spiritual bonds and fetters which tie them into existing social patterns and thus realise their full potential”.

### ***5.2.4 The radical structuralist paradigm***

The radical structuralist paradigm (Quadrant IV) in Figure 5.2 is characterised by advocating the sociology of radical change from an objectivist standpoint. Contrary to the paradigm of radical humanists, concentration on this approach is on relationship of structure within a realist social world: “They [radical structuralists] emphasise the fact that radical change is built into the very nature and structure of contemporary society, and they seek to provide explanations of the basic interrelationship within the context of total social formations” (Burrell and Morgan, 1979, p. 34).

## **5.3 Paradigms and management accounting research.**

Despite the merit and contribution of Burrell and Morgan (1979)’s framework, it has been criticised by other scientists, including in accounting (e.g. Hopper and Powell, 1985; Chua, 1986). Hopper and Powell (1985, p.429) conclude that “the framework forms a map that can be used to find one’s way through the wealth of research, the aims of which are sometimes confusing and the results conflicting”. Specifically, Hopper and Powell (1985, p.451) concern about mutual exclusion between four paradigms as follows:

“The mutually exclusive division of radical theories by Burrell and Morgan carries the danger that concerns of radical structural analysis are seen as incompatible or irreconcilable with those stressing consciousness, rather than seeing both as dialectical aspects of the same reality. Consequently...the subjective-objective dimension is to be regarded as continuous”.

In other words, they argue that that each paradigm should not be isolated from others. Rather, from one end of a continuum to the other is clearly continuous. The extant literature on research methodology in accounting has been concerned very much about “incommensurable paradigms” and mutual exclusivity (Lee, 1991; Laughlin, 1995; Gallhofer and Haslam, 1997; Teddie and Tashakkori, 2009). The mutual exclusiveness of paradigms was emphasised by Burrell and Morgan (1979) but this does not mean that researchers in different paradigms cannot communicate with each other or cannot find any value in each other’s research; moreover while location in a paradigm has implications for preferences in method choice it does not determine method usage or imply that for example a subjectivist researcher sees no value in quantitative method (see Gallhofer et al., 2013). The subjective-objective dimension (see Table 5.1) was seen in terms of six points on a continuum by Morgan and Smircich (1980) and was applied to classify reality for the researcher in the field of management accounting by Tomkins and Groves (1983).

	Objective			Subjective		
Nature of reality as	a concrete structure like the world of physics and chemistry	a concrete process	a contextual field of information	a symbolic discourse	a social construction	a projection of human imagination
The ground of knowledge	To identify the social structure using a positivistic research style for purpose of generalisation	To understand processes of organismic change.	To understand the holistic pattern of change.	To understand shared meanings within a group of persons	To understand deeper into the subjective perspective of the actor	To understand the unique world via human consciousness
The way of obtaining knowledge	Observations and using measurements	Using quantitative measures and standard qualitative classification	Quantitative techniques and context analysis	Symbolic analysis	Ethnology	Phenomenology

Table 5.1: Objective-Subjective dimension

Following Burrell and Morgan (1979)’s thesis, other authors (e.g. Cooper, 1983; Hopper and Powell, 1985; Chua, 1986) classify social theories used in management accounting research into three streams. Mainstream accounting research is understood to be rooted in the functionalist paradigm. The interpretive perspective is articulated in terms of the paradigm of interpretivism. The critical perspective emphasised by Chua



(1986) reflects both the radical humanist and structuralist paradigms. Chua (1986) develops the theme of Hopper and Powell (*supra*) and joins the radical paradigms to articulate three streams of management accounting (see Table 5.2).

	<b>Mainstream accounting research</b>	<b>Interpretive research</b>	<b>Critical accounting research</b>
Knowledge	Theories are used to develop testable hypotheses via observations. Generalisation can be achieved through quantitative methods.	Theories seek to explain human intention. Logical consistency, and subjective interpretation based on common sense of actors. Case study, ethnography, and participant observation are used.	Importance of context to theoretical assessment is emphasised. Therefore, case study and ethnography are popularly used.
Physical and social reality	Social phenomenon exists objectively to the subject. Human beings act rationally, but characterised as passive objects. Stability of societies and organisations is emphasis. Interest conflicts among individuals within the firms do not exist	Emergence of social reality via subjective creation when human beings interact to each other. Meanings of social phenomenon are embedded in social and historical practices. Shared meanings mediate conflict. As such social order is maintained.	Despite assumption of rationality, human actions are restricted by mechanisms attached to their historical contexts. Therefore, totality of social relations and its changes need to take into consideration to understand social phenomenon. Empirical reality is product of interaction between objective world and subjective interpretation. Society is a totality of underlying conflicts arisen by injustice. Social, economic and political ideology may constrain creativity.
Theory-practice relationship	Accounting emphasises specification of means instead of ends.	Production and reproduction of social order is understood through explanation of social actions.	Theory provides social critique by which domination and practices of ideology are identified and removed.

Table 5.2: Three research streams in accounting, adapted from Chua (1986)

The “Middle-range” thinking of Laughlin (1995) acknowledges the value of Burrell and Morgan (1979)’s framework, but maintains its over simplicity. Laughlin

proposes a third dimension as well as emphasises the continuity of the dimensions: the third dimension is the degree of openness of prior theory. The three fundamental concerns of the framework are social scientists' choices of theory, methodology and change orientation which differ from one school of thought to another illustrated in terms of key possibilities (see Table 5.3).

	High/high low <sup>a</sup>	Medium/medium medium <sup>a</sup>	Low/low low <sup>a</sup>
<i>Theory characteristics</i>			
Ontological belief	Generalizable world waiting to be discovered	"Skeletal" generalizations possible	Generalizations may not be there to be discovered
Role of theory	Definable theory with hypotheses to test	"Skeletal" theory with some broad understanding of relationships	Ill-defined theory – no prior hypotheses
<i>Methodology characteristics</i>			
Role of observer and human nature belief	Observer independent and irrelevant	Observer important and always part of the process of discovery	Observer important and always part of the process of discovery
Nature of method	Structured, quantitative method	Definable approach but subject to refinement in actual situations, invariably qualitative	Unstructured, ill-defined, qualitative approach
Data sought	Cross-sectional data used usually at one point in time and selectively gathered tied to hypotheses	Longitudinal, case-study based. Heavily descriptive but also analytical	Longitudinal, case-study based. Heavily descriptive
Conclusions derived	Tight conclusions about findings	Reasonably conclusive tied to "skeletal" theory and empirical richness	Ill-defined and inconclusive conclusions but empirically rich in detail
Validity criteria	Statistical inference	Meanings: researchers + researched	Meanings: researched
<i>Change characteristics</i>			
	Low emphasis on changing status quo	Medium emphasis open to radical change <i>and</i> maintenance of status quo	Low emphasis on changing status quo

<sup>a</sup>Theory, methodology and change ordering

Table 5.3: Some key characteristics of the dominant schools of thought, taken from Laughlin (1995, p. 80).

Laughlin (1995, p.81), in promoting it as rooted in German critical theory “as a way forward for empirical research in accounting” (p.85), highlights “middle-range” thinking as follows:

“This approach recognizes a material reality distinct from our interpretations while at the same time does not dismiss the inevitable perspective bias in models of understanding. It also recognizes that generalizations about reality are possible, even though not guaranteed to exist, yet maintains that these will always be “skeletal” requiring empirical detail to make them meaningful... To the “middle-range” thinkers the empirical is of vital importance. It complements and completes the “skeletal” theory. It may, on occasions, enrich the “skeleton” since it is from empirical investigation that “skeletal theory” is derived. However, expansion of the “skeleton”, once discovered, is not guaranteed. In fact, it is assumed that the empirical detail will always be of importance to make the “skeleton” complete in particular contexts”.

The same concern on methodological issues in accounting is shared by other authors (e.g. Gallhofer and Haslam, 1997; Gallhofer *et al.*, 2013). Gallhofer and Haslam (1997) indicate the dangers of Burrell and Morgan (1979)’s paradigm cells working effectively as “prison cells” (p.78). Gallhofer *et al.* (2013), based on Laughlin (1995)’s work, also warn researchers of over-determination of research methods in the paradigms. That is, positivism, for instance, is not uniquely characterised by quantitative methods. Therefore, a flexible openness enables social scientists of different paradigms to better communicate constructively, potentially resulting in positive effects on accounting development.

#### **5.4 Rationale of chosen research design for the study**

A contingency approach informs the first phase of the study, which is concerned with exploring the impacts of PEU and task uncertainty on PMAS practices and effects of PMAS practices on organisational performance. In this way, the contingency approach is located in a structural-functionalist orientation (Cooper, 1983; Chenhall, 2003; Gerdin and Greve, 2008; Grabner and Moers, 2013). That is, “the orderliness of organisation activities and the role of management practices in tidying any muddle” (Cooper, 1983, p. 269). Survey design has been employed to search for relationships between PMAS practices, contingent variables and organisational performance (Otley, 1980; Hopper and Powell, 1985; Chenhall, 2003).

At the same time, numerous authors recognise inadequacy of survey design for contingency-based studies because of some reasons (for example, Otley, 1980; Cooper,

1983; Bisbe *et al.*, 2007). For Otley (1980, p. 424), “it is unrealistic to expect purely statistical methods of analysis to unravel a complex pattern of interaction”. This concern is also raised by Hopper and Powell (1985) as follows:

“The assumptions behind contingency theory (...) are relationships between an organization and its environment. (...). Although the processual nature of organizations is emphasized, much of the research cited has tended to use questionnaires to take snapshots of temporary structural manifestations followed by detailed statistical analysis, rather than observing the processes first hand over time”.

Defining research constructs is another concern because of theoretical specification requirement (Bisbe *et al.*, 2007). This is partly because contingency idea can be complemented with other theories to provide different explanations for relationships between PMAS practices, contingent variables and organisational performance. (Chenhall, 2003). Therefore, a contingency framework also offers opportunities to gain insights into PMAS practices, contingent variables in relation to organisational performance, which enables the framework to be developed, extended or deepened through other methods (Otley, 1980).

For these reasons, the case study is suggested in the field of management accounting (e.g. Otley, 1980; Scapens, 1990; Otley and Berry, 1994; Chenhall, 2003). This is aligned with an idea of combining positivist and interpretive approaches advocated by various authors (e.g. Lee, 1991; Teddie and Tashakkori, 2009). This combination enables the researcher to overcome shortcomings of positivist approach to contextualize quantitative findings. By doing so, the interpretive approach helps to confirm and explain quantitative findings in more comprehensive way (Teddie and Tashakkori, 2009). A comparison between case study and survey is presented in Table 5.4.

	<b>Case study</b>	<b>Survey</b>
Investigates...	one case or small number of cases	a relatively large number of cases
Data collected and analysed about...	a large number of features of each case	a small number of features of each case
Study of...	naturally occurring cases where the aim is not to control variables	naturally occurring cases selected to maximise representativeness of the sample to its wider population
Quantification of data...	is not a priority	is a priority
Using...	many methods and sources of data	one method
Aiming to...	look at relationships and processes	look for generalisation

Table 5.4: Case study versus survey, Cresswell and Plano Clark (2007)

One way to combine case study and survey is explanatory design that qualitative phase is carried out to explain further significant, non-significant, or surprising results from quantitative findings. In this way, quantitative results can be used to identify suitable cases or participants for qualitative stages (Sieber, 1973; Cresswell and Plano Clark, 2007). As such, a mixed research design is able to maximize strengths and minimize weaknesses of both quantitative and qualitative methods. Research findings become more convincing thanks to being triangulated by different types of data. Moreover, the researcher not only studies causal effects, but also causal mechanisms between variables, especially when evidence are gathered from one level in the organisation differed from those looked at from other levels (Cresswell and Plano Clark, 2007). This design becomes more popular for gaining deeper understanding into the context of the research, great details and a rich picture can be gained by examining a small number of cases. Therefore, “how” and “why” questions can be answered (Saunders *et al.*, 2007).

The study credibility can be enhanced through ensuring external validity, internal validity and construct validity of research findings. This is partly because quantitative findings can be replicated in a specific case study when biases inherent in survey method threatening finding validity. Moreover, case study provides relatively potent means for assessing the degree of convergence and elaborating divergences between obtained results. Survey results are understood in more holistic and richer context. In particular, emerged anomalies or puzzles can be explained. As such, the research framework can be revised or modified by adding moderating or mediating variables to gain better explanation about relationship between variables. Additionally, concept

validity can be tested, especially when existing measures are used across context and time (Modell, 2005). Table 5.5 provides a visual diagram of explanatory employed in this study.

Phase 1			Pose new questions to explain QUAN differences	Phase2		
QUAN data collection	QUAN data analysis	QUAN results		QUAL data collection	QUAL data analysis	Overall finding and interpretations
<i>Procedures</i>	<i>Procedures</i>	<i>Procedures</i>	<i>Procedures</i>	<i>Procedures</i>	<i>Procedures</i>	<i>Procedures</i>
Conducting survey	Employing different statistical techniques	Confirming or rejecting formulated hypotheses	Identifying results for follow-up; Selecting suitable participants	Conducting semi-structured interviews; collecting documents	Developing narrative story; building causal mechanism as conceptual framework	Explaining differences between quantitative and qualitative findings
<i>Outcomes</i>	<i>Outcomes</i>	<i>Outcomes</i>	<i>Outcomes</i>	<i>Outcomes</i>	<i>Outcomes</i>	<i>Outcomes</i>

Table 5.5: Visual diagram of explanatory design, Cresswell and Plano Clark (2007)

## 5.5 Survey design

The survey entails the collection of quantifiable data in connection with two more variables in order to detect or examine their patterns of association via questionnaire. The survey is characterised by collecting quantitative data at one point of time, involvement of multiple cases and analysing differences in the sample (De Vaus, 2001; Bryman, 2004). In management accounting research, the questionnaire survey is popularly employed for theory testing. Relationships among variables guided by theoretical expectations are examined (Van der Stede *et al.*, 2007). The survey benefits the researcher due to its reasonable costs for data collection within a short time period (Johnson and Turner, 2003). However, this design focuses on measuring the strength of relationships between pre-defined variables rather than examining mechanisms that

created the linkages between those variables. Moreover, the survey does not enable the study to detect causal relationships between variables because of noises from a natural setting. Additionally, the validity of research findings might be influenced by a low response rate. Furthermore, research findings are drawn from statistical reasoning that might not be held in all social settings (Van der Stede et al., 2007). As such, reliability and validity, two important aspects of survey design that impact on credibility of research finding (Bryman, 2004), will be discussed in the following section.

### ***5.5.1 Reliability***

Reliability concerns whether a study is capable of producing consistent results in various contexts. This requires a well-defined research procedure including defining and measuring concepts, selecting respondents and techniques of data analysis (Bryman and Bell, 2007). As such, reliabilities of measures associated with studied concepts need to be paid particular attention because fluctuation of research findings significantly depend on stabilities of concepts. A reliable measure enables the study to obtain stable and consistent answers from respondents. It is noted that reliability of a measure may change over time and vary in different contexts, samples and methods of questionnaire administration. Thus, reliabilities of measures must be assessed in any research, even if established measures are used.

### ***5.5.2 Validity***

“Validity is concerned with the integrity of the conclusions that are generated from a piece of research” (Bryman and Bell, 2007, p. 41). A quantitative study can be evaluated via internal validity, external validity, and measurement validity (Bryman and Bell, 2007). Firstly, internal validity refers to the ability to draw unambiguous conclusions from research results (De Vaus, 2001; Bryman and Bell, 2007). In this sense, the survey does not guarantee absolute internal validity because it only helps to detect associations or correlations between variables, but not causality. Collecting data at one point in time in natural setting prevents the researcher from controlling other factors that may be responsible for the research findings (Bryman and Bell, 2007).

Secondly, external validity refers to generalization of research findings beyond the context of study. This type of validity considerably relies on sample representativeness

of selected research population (Bryman and Bell, 2007). As such, a low response rate leads to challenges of generalizing research findings from one context to another.

Finally, measure validity concerned with whether a concept is really measured by its measure (De Vaus, 2001; Bryman and Bell, 2007). This type of validity is established via content validity and construct validity (De Vaus, 2002; Bryman and Bell, 2007). The former concerns with whether a measure taps different aspects of a concept while the latter refers to underlying theories employed for construct measurement. As such, construct measure must satisfy both convergent and discriminant validities. The former refers to highly inter-correlation between items of a measure while the latter concerns with whether a construct measured by a set of items is discriminated from similar concepts (De Vaus, 2002).

### ***5.5.3 Population and sample***

Listed companies on the Vietnam Stock Exchange were selected as a population for the study and the questionnaire was delivered to 309 listed companies on Vietnam Stock Exchange in April, 2013. This is partly because large firms tend to employ formal PMAS practices rather than smaller firms (King *et al.*, 2010).

### ***5.5.4 Questionnaire design and Pre-test questionnaire***

The questionnaire was designed to acquire information about the five aspects of PMAS practices, PEU, task uncertainty, and organisational performance from listed companies on the Vietnam Stock Exchange. Construct measurements were adapted from previous studies (Saunders *et al.*, 2007). In this way, measurement validity was maximized and research findings can be compared with prior studies (Bradburn *et al.*, 2004; Ronal Czaja and Blair, 2005; Van der Stede *et al.*, 2007). The questionnaire consists of five sections (see Appendix 1). The first section collects some demographic information about respondents included their genders, their working time for the companies, and their educational background. The second section gathers general information on the companies, including their industries, the number of full-time employees, and ownership structure. The third section collects information on the five aspects of PMAS practices, which is followed by the fourth section collecting information about organisational performance. Information about PEU and task uncertainty is gathered in



the fifth section. The respondents are asked to give their contact details if they are interested in further interviews.

The questionnaire was initially designed in English, and subsequently translated into Vietnamese through the back-translation technique (Usunier, 1998). First, I translated the questionnaire into Vietnamese, and then the Vietnamese version of the questionnaire was translated back into English by another Vietnamese researcher who obtained a PhD degree in banking and finance, kept a managerial position in the Vietnamese banking industry and currently is currently a lecturer in the United Kingdom. Then, comparisons between the two English versions were made and some wordings were adjusted to ensure precision of terminology before the Vietnamese version of the questionnaire was finalized. By using this technique, the researcher is able to ensure that the final translated version becomes more precise - in terms of lexical meaning, idiomatic meaning, experiential meaning, grammar and syntax (Harkness *et al.*, 2010).

The pre-test questionnaire was conducted before a large-scale survey. As such, the questionnaire quality is improved through the received feedback, especially when the feedback comes from potential respondents. The use of appropriate language can increase the expected response rate (Bradburn *et al.*, 2004; Ronal Czaja and Blair, 2005; Van der Stede *et al.*, 2007). The questionnaire is pre-tested on five chief accountants of listed companies on the Vietnam Stock Exchange in different sectors (including textiles, chemicals, pharmacy, construction and wholesale). Received feedback and comments indicate that although the questionnaire is understandable, it need to pay attention to information flow, and the length of questionnaire. As a result, the questionnaire was reorganised in different sections to highlight the focus and reduce time to maximize the probability of survey completion.

#### ***5.5.5 Questionnaire administration and response rate***

A web-based survey was used to deliver the questionnaire for two reasons. Firstly, this is due to internet access has increased in popularity in the last ten years (Manzo and Burke, 2012). Secondly, the data can be conveniently collected with low cost, faster speed of data collection and easier follow-up compared with other types of survey such as postal questionnaire or structured surveys (Ronal Czaja and Blair, 2005). Following this approach, the researcher contacted managers of Vietnam Stock Exchange in November, 2012 to ask

for their support in delivering the questionnaire to potential respondents. This request is partly because of challenges in obtaining potential respondents' email addresses (e.g. senior managers or chief accountants) in the context of Vietnam. Moreover, the survey quality and response rate might be improved when the questionnaire is delivered from a trusted email rather than a strange one. The researcher's request was accepted after her justifications of the study's purpose.

A survey package containing a brief summary of the study, a cover letter, and a web-link was sent to the Stock Exchange manager at the beginning of April, 2013 before being forwarded to 309 listed companies. There were 79 companies responded within the first two weeks. The first follow-up was carried out after two weeks, which resulted in the participation of a further 33 listed companies. The second follow-up was carried out two weeks later resulting in a further 11 companies participating. In total, 90 of 123 were identified as usable questionnaire. This represents 29.1% of the population that is about the typical response rate in management accounting studies (e.g. Gul and Chia, 1994; Hoque and James, 2000; King *et al.*, 2010).

## **5.6 Measurement of variables**

### ***5.6.1 Measurements of PMAS practices***

#### *5.6.1.1 The adoption of NFPMs*

The adoption of NFPMs is measured by five items taken from Chenhall (2005) and Hall (2011). Respondents were asked to rank on a five-point Likert scale (1 = not at all to 5 = to a great extent) whether their organisation adopted NFPMs for different uses: (a) linking operating performance to long-term strategies, (b) understanding relationships between different sub-units' activities, (c) obtaining a broad range of performance information about different business areas, (d) measuring key performance areas, and (e) to gather various kind of information about important aspects of the company's operations.

#### *5.6.1.2 Decentralisation of decision-making*

An instrument was developed by Gerdin (2005c) to measure the degree of decentralisation of decision-making at the strategic business unit SBU level. Respondents were asked to evaluate how much rights departmental managers in their

organisations are delegated to make different decisions on a five-point Likert scale (1 = not at all to 5 = to a great extent). These decisions consist of (a) granting overtime at the departmental level; (b) personnel selection; (c) allocation of work among available workers (employees); (d) machinery or equipment to be used; (e) correcting problems when they occur; (f) evaluating employees' performance, (g) deciding on the number of employees required, and (h) whether to employ a person.

#### *5.6.1.3 Participation of lower level managers in setting targets for organisational performance*

A measurement of six items developed by Milani (1975) was used to assess participation in setting budgetary targets. This instrument has been used in numerous prior studies to assess similar or related phenomenon (e.g. Brownell, 1983; Brownell and Dunk, 1991; O'Connor, 1995). Respondents were asked to assess level of participation of departmental managers in setting targets for their organisational performance on a five-point Likert scale (1 = not at all to 5 = to a great extent). These items concern (a) involvement of departmental managers in setting targets for organisational performance; (b) provision very sound and logical reasoning from departmental managers when performance targets are revised; (c) willingness of departmental managers in stating their requests, opinions and/or suggestions about the performance targets without being asked; (d) influence of departmental managers in finalizing organisational performance targets; (e) contribution of departmental managers to the process of setting the targets; and, (f) seeking departmental managers' requests, opinions and/or suggestions from top managers when organisational performance targets are set.

#### *5.6.1.4 Interactive use of NFPMs*

An adapted version of interactive use in the setting of budgetary process developed by Abernethy and Brownell (1999) was used. Respondents were asked to assess the extent to which NFPMs are interactively used in their organisations by ranking four items on a five point Likert scale (1= not at all, 5 = to a great extent). These items concern (a) using NFPMs as a means of questioning and debating the factors affecting the strategy by top managers; (b) interaction between top managers and their subordinates in the process of setting targets for NFPMs; (c) regular and frequent attention to NFPMs from managers at all organisational levels; and, (d) using NFPMs for discussions of changes occurring in the organisation among top management and their subordinates.

#### *5.6.1.5 Objectivity of performance evaluation and rewards*

An adapted version of an instrument developed by Hartmann and Slapničar (2009) was used to measure level of objectivity in evaluating and rewarding performance. The respondents were asked to assess how objective top managers have been when they evaluate and reward their subordinates by ranking six items on a five point Likert scale (1= not at all, 5 = to a great extent). Those items concern (a) documenting pre-set targets of performance measures; (b) quantifying pre-set targets of performance measures; (c) using objective information from the information systems to evaluate the departmental managers' performance; (d) expressing the departmental managers' performance on quantitative rating; (e) providing bonus for departmental managers based on a quantitative rating; and (f) providing bonus for departmental managers based on objective information from the information systems.

#### *5.6.2 Contingency variables*

##### *5.6.2.1 Perceived environmental uncertainty (PEU)*

The study used an adapted version of a measurement developed by Gordon and Narayanan (1984). Respondents were asked to assess the level of PEU that their organisation faces by ranking ten items on a five-point Likert scale (1= not at all to 5 = to a great extent). Those items concern the intensity of competition and changes in various dimensions of the external environment as follows:

- (a) My firm's competitors provide similar products to mine with cheaper prices or the same prices but with more advanced features or functions
- (b) New products and/or services have emerged more often in my industry over the last five years
- (c) Product's marketing and distribution are very competitive in my industry
- (d) It is more challenging for my firm to maintain or improve the market share in my industry
- (e) Competitors have done thing threaten to my firm
- (f) My firm's external economic environment has become more unpredictable
- (g) My firm's external technological environment become more unpredictable
- (h) The tastes and preferences of my firm's customers have become more unpredictable

- (i) The behaviour of competitors has become more unpredictable
- (j) The legal, political and economic constraints surrounding my firm stayed the same

#### *5.6.2.2 Task uncertainty*

An adapted version of a measurement taken from Draft and Macintosh (1981) was used to assess task uncertainty. Respondents were asked to assess the level of uncertainty their organisations faced when tasks are carried out by ranking six items on a five point Likert scale (1= not at all to 5 = to a great extent). Those items are as follows:

- (a) Established materials (manuals, standards, directives, statutes, technical and professional books, and the like) cover the work
- (b) Know a lot of procedures and standard practices to do the work well
- (c) Reliance on established procedures and practices
- (d) A work is derived from various events
- (e) Take a lot of experience and training to know what to do when a problem arises
- (f) Tasks require an extensive and demanding search for a solution

#### *5.6.3 Organisational performance*

The four perspectives of the BSC conceptualized by Kaplan and Norton (1992) are used in measuring organisational performance, which provides a more comprehensive picture of organisational performance beyond a focus only on financial performance (Kaplan and Norton, 1996c; Hoque and James, 2000). Moreover, these four dimensions relate to both primary and secondary objectives of organisations. The former are owners' objectives which are assumed to be financial while the latter are concerned with objectives derived from the financial objectives that substantively intersect with the interests of other stakeholders such as customers or employees (Atkinson *et al.*, 1997): “[s]econdary objectives are important not in their own right, but because they are instrumental in helping the company achieve its primary objectives” (p. 28, *ibid.*).

Respondents were asked to assess how well their organisation performed compared to their competitors by ranking eight items on a five point Likert scale (1 = well below average to 5 = well above average). Eight items cover 4 dimensions of organisational performance, namely finance, internal business process, customer and innovation and learning. These consist of: (a) the percentage of profit before tax on sale; (b) return on assets; (c) return on investment; (d) sales growth; (e) customer satisfaction; (f) product quality; (g) market share; and, (h) customer satisfaction. This subjective measurement of firm performance has been used in prior studies (e.g. Hoque and James, 2000; Lee and Yang, 2011).

Prior studies suggested that organisational performance can be objectively or subjectively measured. The former refers to using financial information available published or provided by the organisation while the latter refers to managers' self-assessment about their organisational performance in relation to their pre-set performance targets or their competitors' average performance (Merchant, 1984; Mia and Clarke, 1999; Hoque and James, 2000; Ittner *et al.*, 2003b; Henri, 2006a; Grafton *et al.*, 2010). The subjective measure can be considered a useful replacement of the objective measure is unavailable (Venkatraman and Ramanujam, 1986). This is supported by Dess and Robinson (1984) who found a strong correlation between top management team's perception on their firm performance and actual performance regarding return on assets and sales within a time-period. At the same time, financial information publishing available, if relatively objective, is not a perfect measure of the focal phenomena. Thus, both subjective and objective measures have their strengths and weaknesses

## **5.7 Quantitative data analysis**

This section will discuss numerous issues related to quantitative data analysis regarding Partial Least Square-Structural Equation Modelling (PLS-SEM).

### **5.7.1 PLS-SEM**

PLS-SEM refers to a second generation of multivariate analytical techniques that enable a multiple dependent variable model rather than one dependent variable model to be simultaneously tested (Hair *et al.*, 2012). This technique is particularly suitable for the

early stage of theory development, especially when the theoretical foundation of the model has not clearly been justified or relationship directions between variables are not determined (Hair *et al.*, 2011; Astrachan *et al.*, 2014). Moreover, PLS-SEM does not require a substantially large sample size. A minimum required sample size is ten times the number of arrows pointing at a construct. This enables the statistics to be run with a low response rate. Additionally, PLS-SEM helps social scientists to overcome the need to rely on the distribution being normal (Hair *et al.*, 2014). Therefore, PLS-SEM is used to analyse the quantitative data of this study, a sample of 90 responses.

### ***5.7.2 Testing different forms of fit in PLS-SEM***

The selection form of fit can be tested by correlation or regression coefficient of contexts on PMAS practices (Drazin and Van De Ven, 1985; Gerdin, 2005a). The interaction form of fit (moderation model) can be tested through (1) sub-group regression analysis, (2) moderated regression analysis (Burkert *et al.*, 2014). The former divides the sample into several sub-samples based on differences in level of contingency variables. Then, regressions of organisational performance on PMAS practices for each sub-group are separately tested. When the moderated regression analysis is employed, moderating effects of contingency variables are identified through significance of  $\beta_3$  in the equation  $Y = \alpha + \beta_1X + \beta_2Z + \beta_3XZ + \varepsilon$  (Y: organisational performance, X: PMAS practices and Z: contingency variables). This method is preferred when moderators are continuous variables (Irwin and McClelland, 2001; Burkert *et al.*, 2014).

### ***5.7.3 Data analysis with PLS-SEM using Smart-PLS 3.0***

PLS-SEM consists of two steps of data analysis using two different types of model. The first step concerns an outer model (or a measurement model) for assessing unidirectional predictive relationships between each latent construct and its indicators. At this stage, reliabilities and validities of construct (convergent and discriminant validities) are examined (Hair *et al.*, 2011). Reliability of a measure is indicated through the internal consistency of items used to measure the construct. The traditional criterion for assessing measure reliability, Cronbach's alpha, is based on the principle of average split-half coefficients by

randomly dividing items that measure a construct into two equal groups. Where Cronbach's alpha is greater than 0.7 this indicates a measure's reliability<sup>8</sup> (De Vaus, 2002).

PLS-SEM evaluates the internal consistency based on composite reliability (Hair *et al.*, 2014). Composite reliability does not assume that all items of a measure equally contributes to reliability of such measure as Cronbach's alpha does (Hair *et al.*, 2012). This type of reliability is calculated based on item reliabilities of a corresponding construct<sup>9</sup>. The item reliability indicates "the amount of variance in an item due to the underlying construct rather than to error and can be obtained by squaring the factor loadings" (Chau, 1997, p.324). It is demonstrated when the square item loadings are greater than 0.5 (Chin, 1998; Hulland, 1999). Therefore, outer loading of the item requires should be greater than 0.708. Outer loadings of an item between 0.4 and 0.7 should be still retained in the model if composite reliability is greater than 0.708 where measure reliability is indicated (Bagozzi and Yi, 1998; Hair *et al.*, 2014).

Regarding measure validity, Fornell and Larcker (1981) suggest an adequacy of convergent validity when average variance extracted (AVE)<sup>10</sup> of items presenting the construct is greater than 0.50. AVE measures "the amount of variance that is captured by the construct in relation to the amount of variance due to measurement error" (Chau, 1997, pp. 324-325). Discriminant validity can be confirmed when the square root of each construct's AVE is greater than its highest correlation with any other construct in the model. The underlying logic for this lies in the idea that variance are shared between a construct with its associated indicator rather than any other construct. Table 5.6 summarises the four criteria for assessing the outer model (see section 6.5).

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<sup>8</sup> Cronbach's alpha is still reported in Smart-PLS

<sup>9</sup> Composite reliability = (square of summation of factor loadings) / [(square of summation of factor loadings) + (summation of error variances)] (Chau, 1997)

<sup>10</sup> AVE = (summation of squared factor loadings) / [(summation of squared factor loadings) + (summation of error variance)] (Chau, 1997)



<i>Reliability assessment</i>	
Cronbach's alpha	Should be greater than 0.7 and
Item reliability	Should be greater than 0.5
Composite reliability	Should be greater than 0.708
<i>Validity assessment</i>	
Convergent validity	All AVE should be greater than 0.5
Discriminant validity	The square root of each construct's AVE is greater than its highest correlation with any other construct

Table 5.6: An assessment for the outer model

The second step applies the inner model (or the structural model) for testing relationships (paths) between latent constructs. The determination coefficient ( $R^2$ ) ranging from 0 to 1 is considered the first primary criterion to assess impacts of exogenous latent variables on endogenous ones. The  $R^2$  values of 0.75, 0.5 and 0.25 can be described as substantial, moderate or weak, respectively. The interpretation varies between different research disciplines (Hair *et al.*, 2012).

Smart-PLS generates t-statistics for testing significance of both outer and inner models. Individual path coefficients between variables are interpreted as standardized beta coefficients of ordinary least square regression. Its significance is assessed by means of a bootstrapping procedure. A value of the t-statistic greater than 1.96 or the corresponding p-value provides indicates a statistical significance between a set of individual items and the corresponding construct as well as a statistical significance of relationships between constructs of the inner model (Hair *et al.*, 2012) (see section 6.6).

#### **5.7.4 Missing data**

Missing data, unanswered items, are a common problem in the questionnaire survey (De Vaus, 2002). Mean replacement is considered the most appropriate method only when a few values are missed. These missing values were replaced by mean values of variables based on all remaining data (Baraldi and Enders, 2010). By doing so, the sample size is not reduced (Pallant, 2007). In this study, only three items were unanswered: "evaluating employees' performance", "return on investment" and "sales growth". The former belongs to decentralisation of decision-making while the two latter belongs to organisational performance.

### **5.7.5 Multicollinearity**

Multicollinearity occurs when two or more predictors in a model are correlated. In other words, these predictors share a large portion of variance (Hair *et al.*, 1995; Field, 2009). This problem leads to challenges in determining the unique contribution of individual predictor. Moreover, additional predictors might not result in increasing prediction power of the model (Hair *et al.*, 1995). Although it is unavoidable to occurrence of multicollinearity in social science, this problem need to be detected before testing hypothesis (Hair *et al.*, 1995; Field, 2009). Two popular measures for assessing multicollinearity are tolerance value and its inverse – the variance inflation factor (VIF). These measures indicate the extent to which a predictor variable is explained by the other predictor variables. VIF values are greater than 10 or tolerance value values are lesser than 0.1 denote high collinearity<sup>11</sup> (Hair *et al.*, 1995; Field, 2009) (see section 6.5.3).

### **5.8 Case study**

A case study is defined by Yin (2009, p. 18) as follows:

“A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clear evident. The case study inquiry copes with technically distinctive situation in which there will be many more variables of interests than data points, and as one result relies on multiple sources of evidence, with data need to coverage in a triangulating fashion, and another results benefits from development of theoretical propositions to guide data collection and data analysis”

A case study can be used to explore functionality in real life. It seeks to answer “how” and “why” questions related to social phenomenon (Yin, 2009). In this way, various angles of subjects are investigated. As a result, more rounded, richer, in-depth and balanced pictures of subjects can be drawn (Gummesson, 2000; Thomas, 2011).

#### **5.8.1 Case selection**

Case studies were selected based on the participants’ interest in further interviews after completion of the questionnaire survey. Further contacts were made with seven managers to confirm their willingness for doing interviews. Three managers decided to withdraw. One of those willing to be interviewed was logistically difficult given a

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<sup>11</sup> When VIF = 10, the tolerance value =  $1/10=0.1$

significant geographic distance. As a result, case studies were conducted at three manufacturing companies called Fertiliser, Pharmaceutical and Software Companies. There are good reasons for focusing on these three companies because about 75% of responses came from manufacturing companies. Moreover, companies' headquarters were situated about 100 kilometres from the researcher location, which is convenient for visiting and arranging interviews with managers.

### ***5.8.2 Collecting interview data***

#### ***5.8.2.1 Semi-structured interview***

The semi-structured interview was chosen for data collection. This type of interview lies between the structured interview and the unstructured interview. The former is used in quantitative research to maximise the reliability and validity of research constructs via bias minimization while the latter is used in qualitative research to encourage free responses of participants via balance of closed and open questions (Cassell and Symon, 1994). The flexibility of the semi-structured interview enables the researcher to gather further details to answer the research questions (Cassell and Symon, 1994; Bryman and Bell, 2007). Moreover, the relaxed questions, nature of this approach, provide opportunities for participants to express their opinions about research phenomena in relation to their personal experiences (Cassell and Symon, 1994). In this way, interviews help the researcher to validate, elaborate and explain quantitative findings, especially where a low response rate might violate the quality of a questionnaire (Bryman and Bell, 2007). Furthermore, pre-established analytical framework can be expanded by adding new variables to deal with the complexity of the research topic (Galletta and Cross, 2013). Successes of semi-structured interviews might depend on the researchers' ability to develop a conversation with their participants. The researcher should avoid undue bias to enhance reliability and validity of research findings (Yin, 2009).

Face-to-face interview was selected for the study because of participants' preferences and transportation convenience. This created a comfortable, private and relatively undisturbed interview setting for interviewees (Saunders *et al.*, 2007). The importance of interview setting is highlighted by King and Horrocks (2010) because it not only bring physical, but also psychological comfort for participants to engage in the guided

conversation. Moreover, a face-to-face interaction with a free and open atmosphere is considered an appropriate way to gain participants' personal points of view (Holbrook *et al.*, 2003; King and Horrocks, 2010).

On the other hand, face-to-face interviews are subject to a few disadvantages. Participants' answers might be influenced by interviewers' characteristics such as appearance; tone of voice or other non-verbal behaviours, which might lead to undue interviewer bias. Therefore, interviewing skills such as listening skill, cultural knowledge, making comments and the like might influence the interview quality (Saunders *et al.*, 2007; King and Horrocks, 2010). Moreover, concerns about privacy and anonymity may lead to their being a limited amount of information provided by informants, especially when interview topics are sensitive. In this case, lack of trust on the part of participants may engender "socially desirable responses". To avoid this, trust should be built between interviewers and interviewees. Trust not only can be gained via established researchers' credibility, but also can be developed in the course of the interview via the interviewer's competence (Saunders *et al.*, 2007).

Within this project, interview questions were initially developed following the quantitative findings (Ivankova *et al.*, 2006; Cresswell and Plano Clark, 2007). They focus on investigating the managers' perceptions of relevant issues related to PMAS practices and the relationships with contingency variables (PEU and task uncertainty) and firm performance. Other relevant variables were also gathered via open questions in order to understand PMAS practices of a specific company within its context. After the two first interviews, organisational culture was identified as the most relevant factor that needed to be taken into consideration. Therefore, questions concerning organisational culture and its impacts on PMAS practices were developed.

#### 5.8.2.2 *Interview guide*

Constructing an interview guide is considered as key before interviews were conducted (Patton, 2001; Bryman and Bell, 2007; King and Horrocks, 2010). For Patton (2001, p. 343), the "interview guide provides topics or subjects within which the interviewer is free to explore, probe and ask questions that will elucidate and illuminate that particular subject". A list of prepared topics and interview questions provides flexibility for researchers to respond to emerging issues by making some modifications during the

course of interview. Additionally, wording from one interview to another can be changed when questions are asked (Bryman and Bell, 2007; King and Horrocks, 2010). Moreover, the needed information planned for collection within the available time period (Patton, 2001). Furthermore, the interview guide enables the researcher to make comparisons across cases (Bryman and Bell, 2007).

The qualitative phase of this study aims to gain better insight regarding current PMAS practices and the impacts of PEU, task uncertainty and organisational culture on those practices. Moreover, the qualitative stage aims to find out the mechanism through which PMAS practices improve organisational performance in the context of selected companies. The study conducted interviews in 2013 and 2014 (see Appendix 2 and 3 respectively). The 2013 interview protocol consists of five sections. The first section involves introduction of researcher, research projects, issues related to confidentiality and recording, gathering general information of interviewees. The second section consists of questions related to the presence of the company's vision, missions, KSFs, and business strategies. The third section attempts to gather information related to current PMAS practices in relation to organisational performance and factors that influence those practices. The interview protocol further collected information related to PEU, task uncertainty and organisational culture in section 4. The interview 2014 protocol focused on participation of lower level managers in the process of setting targets for organisational performance because the quantitative finding suggested the strongest association between this practice and organisational performance.

The interview questions were initially designed in English before being translated into Vietnamese. The researcher played a significant role in this translation because she herself conducted the interviews. The translated versions of the interview questions were sent to three Vietnamese colleagues in Business College of Phu Tho Province in order to ensure comprehension of interview questions in the context of Vietnam

#### *5.8.2.3 Interview collection procedure*

In organisational research, interviewees can be contacted directly via telephone. Email interaction has even been considered a form of online interview. Both usage of the telephone and email goes beyond an anonymous approach which can facilitate communication. Participants may be contacted through the highest level in the

organisation or via external experts of the relevant fields (Peter, 2010). Regarding this study, the research began with the chief accountants who agreed to participate in the second stage of the study. The second step involved formal asking companies' directors for access into their organisations. At this step, the researcher received the support from Vietnam International Education Development, her sponsor, for a formal introduction to three companies' directors via a Letter of Introduction. A brief outline of the nature and purpose of the research project was enclosed in the letter. The issue of confidentiality was guaranteed in the communication. As a result, the researcher obtained the email addresses of deputy directors and departmental managers from the Personnel Departments. The third step was to contact those managers through email to gain their agreements to interview participation. A Letter of Introduction, a brief outline of the nature and purpose of the research project, a list of interview questions were emailed to deputy directors and departmental managers at the three companies. Confidentiality and anonymity were guaranteed. An informed consent form (see Appendix 4) was sent to participants in order to give them an opportunity to raise their concerns before interviews were conducted.

There were twenty interviews conducted in 2013 and 2014 (twelve and eight interviews respectively). The first interviews conducted in 2013 and 2014 were treated as pilot interviews through which the researcher has learned about the management of interview content to obtain as much as relevant information as possible. Interviewed managers are Deputy Directors and Departmental Managers of the three companies. Although the researcher attempted to contact managers participating in interviews in 2013 for interviews in 2014, some managers were not available. The number of conducted interviews is presented in Appendix 5.

The researcher opened the interview by giving general information about herself before asking information related to participants' names, backgrounds and positions. After this, issues of confidentiality, recording, data storage and usage were discussed. Some concerns related to sensitive issues were raised by managers. In response, the researcher reassured interviewees that the recorder would be switched off when sensitive issues were discussed. At this point, the researcher tried to create a comfortable and open atmosphere before the main questions were asked. As a result, seventeen interviews were recorded. Audio-recording is strongly preferable in

qualitative research because they enable the researcher to obtain fully verbal data. Factors that might influence the quality of interview (e.g. technical issues and level of noise) were controlled as much as possible (King *et al.*, 2010).

Subsequently, the researcher followed prepared interview questions which were substantively based on the literature review and quantitative findings. The interview was kept as natural as possible with the focus on gathering further relevant information. Actual interviews did not exactly follow the schedule. According to information provided by participants, some prepared questions were omitted while several questions were added. As per Gummesson (2000)'s conclusion, the actual situation confronting the researcher has huge impacts on the order of questions asked. While the researcher attempts to follow questions reflected in the conceptual model of study, particular attention is paid to information that participants consider to be important.

Note-taking was also used in the course of the interview. This was not only intensively applied for the three interviews in which participants refused audio recording and some unrecorded parts of interviews, but also applied to other recorded interviews at least to record key points. By doing so, the researcher can outline the main points mentioned by interviewees and have an insurance against technical problems. When interviews were not recorded, plenty of space was left for each main point where further details could be added after interviews completed from memory. Additionally, these notes can be used as brief written reminders to generate questions related to issues raised by interviewees at a later point, rather than interrupting them in mid-flow. These non-verbal records can help the researcher to obtain a full and accurate transcription (Patton, 2001; King and Horrocks, 2010).

### ***5.8.3 Collecting documents and archival records***

Considered as a valuable source of data, documents used for this study are collected through two channels. On the one hand, public documents such as vision and mission statement or reports to shareholders were collected via websites of companies and that of the Vietnamese Stock Exchange. On the other hand, documents which are not in the public domain such as organisational charts were collected at the company (Bryman and Bell, 2007; Saunders *et al.*, 2007). These latter documents are likely to be authentic and

meaningful because they used by the companies themselves. Using the written documents enables the researcher to build up an appropriation of organisational background, context or history useful for interpretation of interview data (Simons, 2009). Moreover, research findings are triangulated by more than one source of data: documents as well as interview (Bryman and Bell, 2007).

#### **5.8.4 Analysing qualitative data using content analysis**

In contrast to quantitative data analysis, qualitative data analysis attempts to understand the meanings of words rather than numbers. It involves a considerable amount of interpretation. Statistics are used to analyse standardized data while non-standardised data is classified into categories through conceptualisation (Saunders et al., 2007). Employing a content or grounded approach to qualitative data analysis relies on the search question(s) that one aims to answers (Cassell and Symon, 1994; Saldaña, 2013). Table 5.7 presents a comparison between the two approaches: content analysis versus grounded analysis.

<b>Content analysis</b>	<b>Grounded analysis</b>
Searching for content (prior hypotheses)	Understanding of context and time
Causally linked variables	Holistic associations
Objective	Subjective: faithful to views of respondents
More deductive	More inductive
Aims for clarity and unity	Preserves ambiguity and contradiction

Table 5.7: Content analysis versus grounded analysis, Easterby-Smith *et al.* (2012, p. 163)

The primary purpose of the interview was to explain and elaborate upon the quantitative findings substantively, content analysis was selected to analyse interview data and the collected documents (Bryman and Bell, 2007). The analytical framework developed at the first stage of the study was used to explain qualitative data. Qualitative data were analysed to find out whether patterns emerged to match propositions of the developed framework. This approach is considered to be highly structured compared to the low level of structure used in grounded theory where data itself is the starting point for analysis (Saunders et al., 2007). Predetermined topics based on identified quantitative findings were used to code “meaning units” in the qualitative analysis (Creswell and



Clark, 2011). When emerging patterns from cases might not conform to those expected in pre-established analytic framework, the researcher can seek alternative explanations for those emerging patterns (Saunders et al., 2007).

Analysing interviews began with the production of interview transcripts in Vietnamese as soon as possible after completion of the interview. By doing this, the researcher sought to ensure meanings that interviewees meant, especially important where clear direct answers were not provided for some sensitive issues. Sometimes, the answers were culturally expressed in non-verbal language such as face expression, tone of voice, their hesitations and the like. This was more likely to be picked up with speedy transcription. Transcription was checked to ensure its accuracy. Thus, each recording was listened to at least twice, through which the researcher obtained a good sense of meanings (Cassell and Symon, 1994).

Despite availability of software and its usefulness for analysing a huge amount of qualitative data, the software cannot replace the role of researcher in the process of data analysis (Burnard, 1994). Therefore, the manual process was chosen to analysis 20 interviews of this study. Data analysis was analysed through two phases: each case referred the particular company and the across the cases for comparison (Ivankova *et al.*, 2006; Malterud, 2012).

In the first stage, a coding technique of meaning condensation was selected to abridge long expressions of interviewees into shorter formulation (Kvale, 2007; Saldaña, 2013). This technique was employed to analyse interviews following findings obtained via analysing survey data (e.g. Jellesmark *et al.*, 2012). Each transcript was read and re-read twice to ensure a comprehensive understanding of data before a “meaning unit” was determined (Kvale, 2007; Malterud, 2012). “[A] meaning unit is a discrete phrase, sentence or series of sentences which conveys one idea or one related set of perceptions” (Burnard, 1994, p. 113). Then those “meaning units” were coded. According to this technique, not every single sentence or element of interview transcripts is able to form a meaning unit. Only parts that contain information that help to answer the research question(s) are coded. In this way, identified meaning units can be classified into themes when comparing across cases needed (Malterud, 2012). Words denoting a cause-effect relationship such as “because”, “since” or “therefore” were taken into

account. At this stage, 20 interviews were analysed together to identify if draw themes match the analytical framework before comparisons are made across three cases. For Saldaña (2013), coding methods of studies hugely vary from one qualitative study to another because of the uniqueness. In many cases, more than one coding method might be used to achieve the goal of study. Provisional coding that establishes a list of codes before data are coded was employed. In this way, qualitative data are built on and used for corroborating and extending quantitative findings. Structural coding, a method for coding data related to a specific research question, is also used.

The second stage began with identifying dimensions, information or themes that are comparable among three cases. For explanatory mixed methods design, quantitative results and qualitative findings have a mutual relationship, consistent with gaining insight into a focus through a range of methods. The sequential design emphasises the connection between two phases. Thus, the quantitative findings help to identify areas for qualitative analysis and helps in the selection of the case study while the qualitative results enable the researcher to explain, elaborate and also go beyond the quantitative findings (Creswell and Clark, 2011). The quotes in Vietnamese were translated into English by the researcher herself.

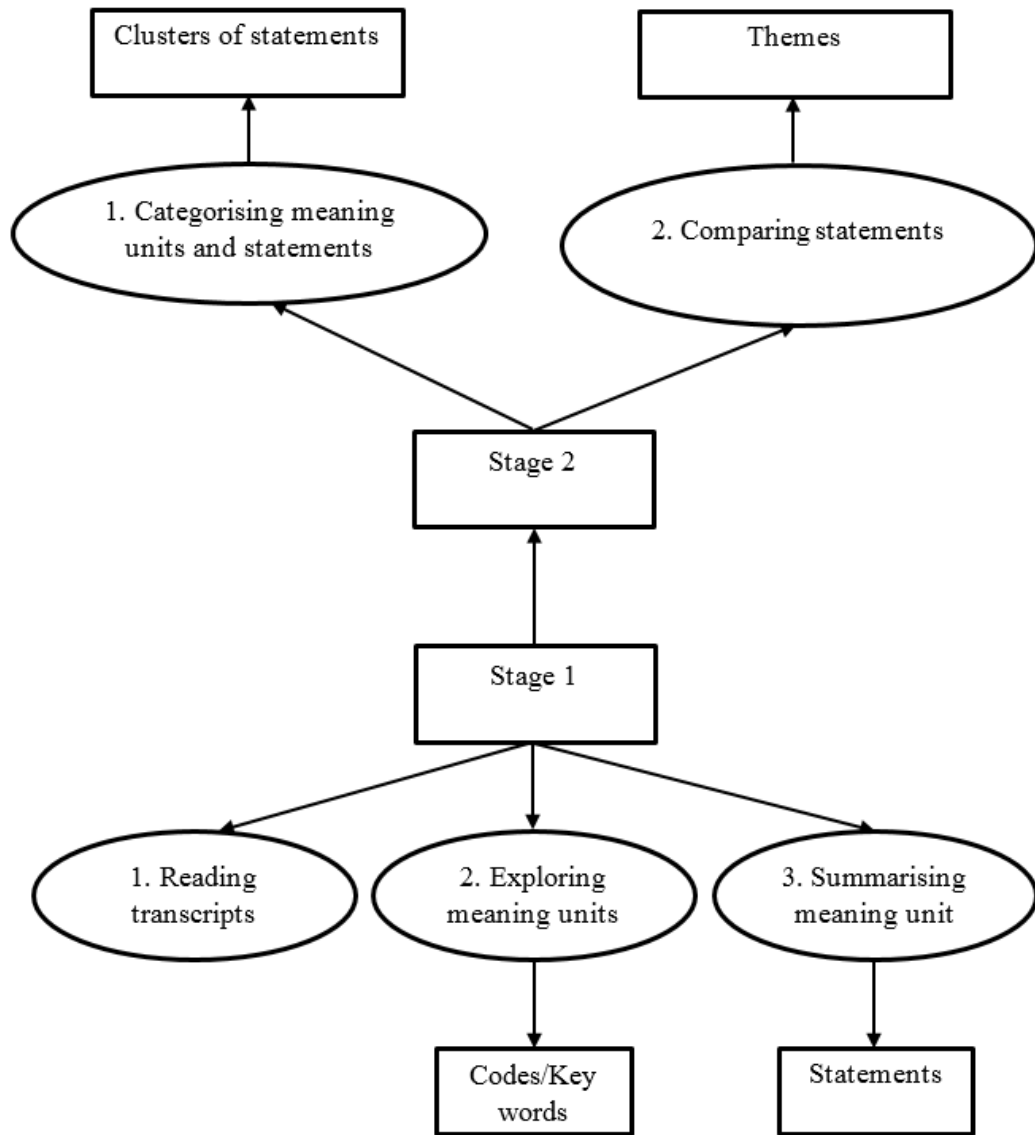


Figure 5.3: Procedure of qualitative data analysis

## 5.9 Summary

The chapter has provided the rationale for employment of a mixed sequential explanatory research design of the study. Based on Burrell and Morgan's (1979) framework of research paradigms, the researcher who positions herself in the interpretive paradigm can realise mutual benefits gained through the combination of different research methods used in her study. In a sequential method, an interpretivist who tends to prefer qualitative methods because of the limitations embedded in quantitative methods can still see some values in quantitative methods.

This methodological standpoint provided a justification for the selection of a mixed methods research design that was sequential in character. Regarding the survey design, issues related to research design including reliability, validity, population, sample, questionnaire development, pre-testing, administration and response rates were discussed. Construct measures adapted from prior studies were used in the quantitative analysis and these were presented in relation to three groups: PMAS practices, contingent variable, and organisational performance. Discussions related to quantitative data analysis, PLS-SEM, laid the foundation for testing research hypotheses.

With respect to the case studies, the chapter provided reasons for case selection and discussions on two methods of data collection namely the semi-structured interview and collection of documentations. Moreover, the process of analysing qualitative data was specified. The first stage of qualitative data analysis involves reading transcripts, exploring meaning units for coding and summarising meanings units into statements. The second stage focuses on categorising meaning units and statements to form clusters of statements and creating themes from comparing the statements.

## Chapter 6: Quantitative Findings

This chapter aims to present the results of the quantitative data analysis. Section 6.1 provides information on the background of the surveyed organisations and respondents. The background information of the organisation is multi-dimensional: types of industry, ownership structure, organisational size and respondents' characteristics. This is followed by descriptive statistics of five aspects of PMAS practices (section 6.2), PEU and task uncertainty (section 6.3) as well as organisational performance (section 6.4). Then, an assessment of an outer model involving reliabilities, convergent and discriminant validities of research measurement is presented (section 6.5). Afterwards, an inner model involving result presentation from testing research hypotheses is given (section 6.6) before the chapter closes with a summary (section 6.7).

### 6.1 A review of the background descriptive statistics

#### 6.1.1 Background of the organisations

As shown in Table 6.1, the target population of the study consists of 309 listed companies classified into two categories: 118 manufacturing companies (38.1%) versus 191 non-manufacturing companies (61.9%). There are 90 usable responses making up a response rate of 29.12% comprising: 69 manufacturing companies (76.6%) and 21 non-manufacturing companies (23.4%). The sample of 90 usable responses is made up by 22 food and drink companies (24.44%), 12 companies operating in construction materials (13.33%), 7 textiles and fashion companies (7.78%), 6 electronic companies (6.67%), 6 pharmaceutical companies (6.67%), 5 chemical and fertiliser companies (5.56%). Other industries contributed to the sample with low percentages.

The pattern of responses appears to reflect the current stage of the Vietnamese economy. Manufacturing companies accounted for about 40% of the population (309 listed companies). However, 75% of the sample (90 usable responses) was manufacturing companies. This might reflect a labour-intensive characteristic of the economy (Lim, 2014): 37% of GDP has been contributed by the manufacturing sector since 2000 (GSO, 2014). Noticeably, response rates vary between different labour-intensive manufacturing industries. These response rates received from companies operating in forestry, mining and mineral and constructions (0%, 1.11% and 3.33 %

respectively) are much lower in relation to those received from firms operating in other industries such as textiles and fashion, food and drink, construction materials, pharmaceutical or fertilisers (7.78%, 24.44%, 13.33%, 6.67% and 5.56% respectively). This variation might reflect differences in PMAS practices among those companies. That is, those with higher response rates might experience change in PMAS practices to a greater extent than the others. Some industries might face higher PEU than the others because of a characteristic related to customer diversity (Gordon and Miller, 1976; Guilding, 1999; Guilding and McManus, 2002). In this sense, low response rate companies appear to rely more considerably on governmental institutions that can hugely influence their business strategy as final customers and policy makers. However, target customers of high response rate firms might go beyond governmental institutions to individuals.

Alternatively, the reason might lie in ownership structure of listed companies characterised by a relatively high level of the State's intervention. As shown in Table 6.2, the State holds maximum of 71% of the shares while the highest ratio of the shares held by foreign investors was 49% (this foreign ownership cannot go beyond 49% of the shares under the current law in Vietnam). The average ratio of the shares held by domestic private investors, foreign investors and the State was 64.14%, 10.06% and 25.8% respectively. The State was shareholder of 67 companies of which 23 companies are classified as SOEs because more than 50% of the shares are held by the State. Foreign investors held the shares in 37 companies. The total ratio of the shares held by the State, the top management and domestic investors tend to be greater than that held by foreign investors. Moreover, the State might control over the company through holding more than 50% of the decisive vote. This gradual change in ownership structure might hugely impact various control characteristic (e.g. financial strategy or employment), especially when organisations are involved in restructuring processes (Kuvandikov *et al.*, 2014; Higgins *et al.*, 2015).

STT	Sectors	Possible responses	Usable responses	
			Number	Percentage
1	Forestry	7	0	0.00
2	Mining and minerals	13	1	1.11
3	Food and drink	32	22	24.44
4	Textile and fashion	9	7	7.78
5	Furniture production	3	0	0.00
6	Papers and printing materials	5	3	3.33
7	Chemicals and fertilisers	7	5	5.56
8	Pharmacies	7	6	6.67
9	Products from rubber and plastics	9	7	7.78
10	Construction materials	18	12	13.33
11	Electronics	8	6	6.67
	<b>Classified as manufacturing</b>	<b>118 (38.1%)</b>	<b>69</b>	<b>76.6</b>
12	Constructions	30	3	3.33
13	Gases, water and electricity	17	2	2.22
14	Wholesale and retail	46	3	3.33
15	Transportation and logistics	22	3	3.33
16	Tourism and restaurants	10	4	4.44
17	Communication	4	2	2.22
18	Banking and financial services	15	3	3.33
19	Housing and Estate	36	1	1.11
20	Others	11	0	0.00
	<b>Classified as non-manufacturing</b>	<b>191(61.9%)</b>	<b>21</b>	<b>23.4</b>
	<b>Total</b>	<b>309 (100%)</b>	<b>90</b>	<b>100</b>

Table 6.1: Descriptive Data of the Respondent Companies

Holding Constituencies	Range (%)	Mean (%)	No of company
1. Holding by the State	0-71	25.80	67
2. Holding by domestic private owners	0-100	64.14	90
3. Holding by foreigners	0-49	10.06	37

Table 6.2: The ownership structure of the sample: percentage of company shares held by various constituencies

Regarding organisational size, there are 22 companies (24.4%) recruiting less than 250 full-time employees, 34 companies (37.8%) recruiting from 251 to 500 full-time employees, 22 companies (24.4%) recruiting from 500 to 1,000 full-time (24.4%) and 12 companies (13.3%) recruiting more than 1,000 as shown in Table 6.3.

The number of full-time employees	Number of companies	Percentage (%)
1-250	22	24.4
251-500	34	37.8
501-1,000	22	24.4
>1,000	12	13.3
<b>Total</b>	<b>90</b>	<b>100</b>

Table 6.3: Classification of companies based on the number of full-time employees

### 6.1.2 Individual respondents' background

Chief accountants are chosen because their jobs are highly related to the concerns of the study (accounting, finance and management). Moreover, it has felt they would be familiar with terminologies used in the questionnaire. Chief accountants participating in the survey reported that they were holding at least Bachelor Degrees and a Vietnamese Certificate of Chief Accountant. As shown in Table 6.4, the majority of chief accountants had been working more than 10 years for their companies (about 58% of respondents) while just over 11% of respondents had been working for their companies less than 5 years. The number of chief accountants working from 5 to 10 years for their companies was 28 (31% of respondents). Most chief accountants (73 respondents, accounting for 81.1% of the sample) had kept their positions for at least five years.

Years in company	No of Respondents	%	Years in	No of Respondents	%
<= 5 years	10	11.1	<= 5 years	17	18.9
5<years<10	28	31.1	5<years<10	37	41.1
>= 10 years	52	57.8	>= 10 years	36	40

Table 6.4: Summary of respondents' demographics

## 6.2 Descriptions of PMAS practices

### 6.2.1 The adoption of NFPMs

As shown in Table 6.5, four of five items (except for item number 3) have means under 3. Mean values of item number 1 and 2 (2.18 and 2.63 respectively) are relatively lower than that of item number 4 and 5 (2.88 and 2.93 respectively). The results indicate that the adoption of NFPMs is not relatively high. Moreover, these measures are fundamentally adopted to fulfil information needs in relation to performance of operational areas and important aspects of operations. However, the adoption of NFPMs appears to be used for



linking operating performance to long-term strategies and understanding impacts of business units on each other.

Items	Mean	Standard deviation	Actual range		Theoretical	
			Min	Max	Min	Max
1. NFPMs link operating performance to long-term strategies	2.18	1.48	1	5	1	5
2. NFPMs show how business unit activities affect other units in the company	2.63	1.49	1	5	1	5
3. NFPMs provide a broad range of performance information about different areas of the company	3.51	1.29	1	5	1	5
4. A diverse set of NFPMs related to the key performance areas of the company is used	2.88	1.23	1	5	1	5
5. NFPMs provide a variety of information about important aspects of company's operations	2.93	1.27	1	5	1	5

Table 6.5: Descriptive statistics of the adoption of NFPMs

### ***6.2.2 Decentralisation of decision-making***

The mean of most items measuring a degree of decentralisation of decision-making is higher than 3 as shown in Table 6.6. The result indicates that departmental managers are delegated the right to make decisions related to evaluating their employees' performance in their departments to a considerable degree (mean = 4.60); the correction of problems and the allocation of work among available workers are substantively done at the departmental level (mean = 4.58 and 4.29 respectively); overtime at the department, methods of personnel selections and the usage of machinery or equipment tend to be substantively decided by departmental managers (mean = 3.58, 3.34 and 3.33 respectively). However, the right of making decisions about the number of workers required and decisions about worker recruitment is less evident at the departmental level (mean = 1.88 and 1.80 respectively).

Items	Mean	Standard deviation	Actual		Theoretical	
			Min	Max	Min	Max
1. Overtime at the departmental level	3.58	1.33	1	5	1	5
2. Methods of personnel selections	3.34	0.95	1	5	1	5
3. Allocation of work among available employees	4.29	0.99	2	5	1	5
4. Machinery or equipment to be used	3.33	1.13	1	5	1	5
5. Correcting problems when they occur	4.58	0.76	2	5	1	5
6. Evaluating employees' performance	4.60	0.81	1	5	1	5
7. The number of employees required	1.88	1.24	1	5	1	5
8. Whether to employ a person	1.80	1.06	1	5	1	5

Table 6.6: Descriptive statistics of decentralisation of decision-making

### 6.2.3 Participation of lower level managers in setting targets for organisational performance

As shown in Table 6.7, surveyed companies appear to witness a relatively high degree of participation in setting targets for organisational performance. Departmental managers are involved in setting most organisational performance targets (mean =4.06), provide the reasons (sound and logical) for revising firm performance targets (mean = 3.11) and make a considerable contribution to setting the performance targets (mean = 3.74). In the process of setting the targets, top management seeks requests, opinions and suggestions from their subordinates (mean = 3.82). However, departmental managers appear to do these when being asked by their superiors rather than actively participating (mean = 2.56). Influences of their participation on final targets are not significant (mean = 2.91).

Items	Mean	Standard deviation	Actual range		Theoretical range	
			Min	Max	Min	Max
1. Departmental managers involves setting most performance targets	4.07	1.00	2	5	1	5
2. Departmental managers provide very sound and logical reasoning when the performance targets are revised	3.11	1.21	1	5	1	5
3. Departmental managers states requests and opinions and/or suggestions about the performance targets without being asked	2.56	1.22	1	5	1	5
4. Departmental managers have very much influence on the final performance targets	2.91	1.21	1	5	1	5
5. Departmental managers have very big contribution to set performance targets	3.74	0.98	2	5	1	5
6. The superior seek departmental managers' requests, opinions and/or suggestions when the performance targets are set	3.83	1.12	1	5	1	5

Table 6.7: Descriptive statistics of participation of lower level managers in setting targets for organisational performance

#### 6.2.4 Interactive use of NFPMs

As shown in Table 6.8, NFPMs are interactively used across managerial levels to track the progression of organisational performance (mean = 3.77) and to facilitate discussions about changes occurring in the organisation (mean = 3.33). This is in line with Simons (1995) who suggests that interactive use is first based on analyses of deviations between actual and pre-set performance before actions are taken. This provides single and double feedback loops for managers in the process of strategy implementation. Although the adoption of NFPMs is reported, these measures were not used as means of questioning and debating the factors affecting the strategy (mean = 2.57). Moreover, they are not reviewed regularly by managers across organisational levels (mean = 2.63). One reason for this might lie in a weak link between NFPMs and business strategy. According to Speckbacher *et al.* (2003), despite attachment between strategic objectives and strategic measures, vague strategic objectives gave rise to difficulties for cascading strategic measures.

Items	Mean	Standard deviation	Actual range		Theoretical	
			Min	Max	Min	Max
1. NFPMs are used by top management as a means of questioning and debating the factors affecting the strategy	2.57	1.19	1	5	1	5
2. NFPMs are intensively used for interaction between top management and their subordinates in the process of achieving organisational performance targets	3.77	0.88	2	5	1	5
3. NFPMs demand regular and frequent attention from managers at all organisational levels	2.63	1.17	1	5	1	5
4. NFPMs are used to discuss changes occurring in the organisation among top management and their subordinates.	3.33	0.96	1	5	1	5

Table 6.8: Descriptive statistics of interactive use of NFPMs

#### 6.2.5 Objectivity of performance evaluation and rewards

As shown in Table 6.9, means of all items are higher than 4. This indicates that Vietnamese organisations appear to maintain high objectivity through quantifying and

documenting pre-set targets of performance as well as using objective information and quantitative rating in evaluating and rewarding performance.

Performance measures	Mean	Standard deviation	Actual range		Theoretical	
			Min	Max	Min	Max
1. Pre-set targets of performance are documented	4.31	0.63	2	5	1	5
2. Pre-set targets of performance measures are quantified	4.17	0.73	1	5	1	5
3. The top management uses objective information from the information systems to evaluate the department managers' performance	4.12	0.97	1	5	1	5
4. The top management expresses the department managers' performance on quantitative rating	4.14	1.02	1	5	1	5
5. The department managers' bonus is based on the superior's judgment in quantitative terms about their performance	4.10	0.95	2	5	1	5
6. The department managers' bonus is based on objective information from the information systems about their performance	4.11	0.94	2	5	1	5

Table 6.9: Descriptive statistics of objectivity in performance evaluation and rewards

### 6.3 Description analysis of contingency factors

#### 6.3.1 PEU

As shown in Table 6.10, 7 out of 10 items have their means greater than 3, which indicates a relative high level of PEU faced by Vietnamese organisations. Standard deviations (greater than 1 for all items) indicate that some companies might face much lower level of PEU than others. The companies witnessed a high unpredictability of the external economic environment (mean = 3.8), a high intensity of competition in marketing and distributing products and services (mean = 3.6), high intensity of price competition (mean = 3.3), high legal, political and economic constraints (mean = 3.3). However, these organisations have experienced a relatively stable technological environment (mean = 2.5), a moderate intensity of product competition and a moderate threat from their competitors (mean = 2.9 and 3.0 respectively).

Items	Mean	Standard deviation	Actual range		Theoretical	
			Min	Max	Min	Max
1. My firm's competitors provide similar products to mine with cheaper prices or the same prices but with more advanced features or functions	3.3	1.2	1	5	1	5
2. New products and/or services have emerged more often in my industry over the last five years	2.9	1.3	1	5	1	5
3. Product's marketing and distribution are very competitive in my industry	3.6	1.3	1	5	1	5
4. It is more challenging for my firm to maintain or improve the market share in my industry	3.2	1.3	1	5	1	5
5. Competitors have done things threatening to my firm	2.6	1.2	1	5	1	5
6. My firm's external economic environment has become more unpredictable	3.8	1.0	2	5	1	5
7. My firm's external technological environment has become more unpredictable	2.5	1.0	1	5	1	5
8. The tastes and preferences of our firm's customers have become more unpredictable	3.5	1.2	1	5	1	5
9. The behaviour of competitors have become more unpredictable	3.0	1.1	1	5	1	5
10. The legal, political and economic constraints surrounding my firm stayed the same	3.3	1.2	1	5	1	5

Table 6.10: Descriptive statistics of PEU

### 6.3.2 Task uncertainty

The mean of all items are higher than 4 as shown in Table 6.1, which indicates that despite establishment of formal rules, procedures and standards, knowledge and skills are required to deal with exceptions. According to Nahm *et al.* (2003), a high level of formalisation does not imply a low level of task uncertainty. This aspect of formalisation enables the organisation to achieve efficient operations. The authors suggest that a level of task uncertainty might be associated with the nature of formalisation. Under high task uncertainty, the nature of formalisation focuses on encouraging creativity of people in the process of task performance. Thus, a high level of task uncertainty might be faced by Vietnamese organisations.

Items	Mean	Standard deviation	Actual range		Theoretical	
			Min	Max	Min	Max
1. Established materials (manuals, standards, directives, statutes, technical and professional books, and the like) cover the work.	4.38	0.86	2	5	1	5
2. One needs to know a lot of procedures and standard practices to do the work well	4.27	1.05	2	5	1	5
3. Reliance on established procedures and practices is important	4.02	0.83	2	5	1	5
4. A work is derived from various events	4.10	1.13	1	5	1	5
5. It takes a lot of experience and training to know what to do when a problem arises	4.04	0.96	1	5	1	5
6. Tasks require an extensive and demanding search for a solution	4.10	0.96	1	5	1	5

Table 6.11: Descriptive statistics of task uncertainty

#### 6.4 Descriptive analysis of organisational performance

Organisations report that their performances are relatively higher than that of competitors on most performance measures except employee satisfaction (mean = 2.88, standard deviation = 1.28). This suggests that the respondent organisations focus less on “employee satisfaction” than other aspects of their performance. This finding is in line with previous studies suggesting that positive impacts of customer satisfaction and product (service) quality on financial performance is stronger than that of employee satisfaction on financial performance (e.g. Yee *et al.*, 2008; Chi and Gursoy, 2009; Kaplan, 2010).

Items	Mean	Standard deviation	Actual range		Theoretical	
			Min	Max	Min	Max
1. The percentage of profit before tax on sale	3.62	1.00	2	5	1	5
2. Return on asset (ROA)	3.49	1.03	2	5	1	5
3. Return on investment (ROI)	3.49	1.02	2	5	1	5
4. Sales growth	3.39	1.14	1	5	1	5
5. Customer satisfaction	3.21	1.24	1	5	1	5
6. Product quality	3.26	1.22	1	5	1	5
7. Market share	3.07	1.31	1	5	1	5
8. Employee satisfaction	2.88	1.28	1	5	1	5

Table 6.12: Descriptive statistics of organisational performance

## 6.5 An evaluation of the outer model

As discussed in section 5.7.3, reliabilities of measures are evaluated via the outer model based on item loadings, CR, AVE, and discriminant validity of constructs

### 6.5.1 Assessing reliability of constructs

Reliability of a construct is indicated if outer loadings of items making up the construct are greater 0.708 (ideally) or at least 0.4 and composite reliability is greater than 0.7 (in the table composite reliability is abbreviated as CR). As shown in Table 6.13, outer loadings of five items measuring the adoption of NFPMs are greater than 0.4. Except item number 3 having the lowest loading of 0.682, outer loadings of remaining items are greater than 0.708. T-statistics on five items (greater than 1.96) indicates significances between the items and the corresponding construct. Internal consistency of these items is manifested by composite reliability of 0.89. These indicate reliability of the measure for the adoption of NFPMs.

Items	Outer loadings	t-statistic (Bootstrap)	CR
1. NFPMs link operating performance to long-term strategies	0.795	14.498	0.89
2. NFPMs show how business unit activities affect other units in the company	0.770	11.503	
3. NFPMs provide a broad range of performance information about different areas of the company	0.682	10.333	
4. A diverse set of NFPMs related to the key performance areas of the company is used	0.841	19.464	
5. NFPMs provide a variety of information about important aspects of business unit's operations	0.806	14.418	

Table 6.13: Item loadings and composite reliability of the adoption of NFPMs

Table 6.14 shows outer loadings of 6 items measuring decentralisation of decision-making are greater than 0.4. Four out of six items have their outer loadings greater than 0.708. Outer loadings of item number 4 and 5 are 0.691 and 0.676 respectively. T-statistics that are greater than 1.96 indicate significances of the items and the corresponding construct. Composite reliability of 0.8 indicates internal consistency of these items, which demonstrates reliability of the measure for decentralisation of decision-making.

Items	Outer loadings	t-statistic (Bootstrap)	CR
1. Overtime at the departmental level	0.807	17.515	0.8
2. Methods of personnel selection	0.801	22.956	
3. Allocation of work among available workers	0.798	17.524	
4. Machinery or equipment to be used	0.691	9.333	
5. Correcting problems when they occur	0.676	8.363	
6. Evaluating employees' performance	0.704	9.788	

Table 6.14: Item loadings and composite reliability of decentralisation of decision-making

As shown in Table 6.15, outer loading of six items made up participation of lower level managers in setting targets for organisational performance are greater than 0.708.

Relationships between the items and the corresponding construct are statistical significant, which is demonstrated by t-statistics greater than 1.96. The items are internally consistent, which is indicated by composite reliability of 0.92. For this reason, the measure of participation of lower managers in setting targets for organisational performance is reliable.

Items	Outer loadings	t-statistic (Bootstrap)	CR
1. Departmental managers get involved in all of setting performance targets	0.737	14.719	0.92
2. Departmental managers provide very sound and logical reasoning when the performance targets are revised	0.859	24.260	
3. Departmental managers states requests and opinions and/or suggestions about the performance targets without being asked	0.831	27.698	
4. Departmental managers have very much influence on the final performance targets	0.813	20.954	
5. Departmental managers have very big contribution to set performance targets	0.793	18.366	
6. The superior seek departmental managers' requests, opinions and/or suggestions when the performance targets are set	0.774	16.898	

Table 6.15 Item loadings and composite reliability of participation of lower level managers in setting targets for organisational performance

Table 6.16 shows statistics that demonstrate measure reliability for interactive use of NFPMs. Outer loadings of four items measuring interactive use of NFPMs are greater than 0.708. T-statistics (greater than 1.96) indicate significances of these items and their



corresponding construct. An indication of internal consistency of the items made up the construct is approved by composite reliability of 0.91.

Items	Outer loadings	t-statistic (Bootstrap)	CR
1. NFPMs are used by top management as a means of questioning and debating the factors affecting the strategy	0.868	23.669	0.91
2. NFPMs are intensively used for interaction between top management and their subordinates in the process of achieving organisational performance targets	0.752	12.435	
3. NFPM demands regular and frequent attention from managers at all levels	0.879	25.808	
4. NFPMs are used to discuss changes occurring in the firm among top management and their subordinates	0.878	34.355	

Table 6.16: Item loadings and composite reliability of the interactive use of NFPMs

As shown in Table 6.17, 6 items measuring the objectivity in performance evaluation and rewards have outer loading greater than 0.708. These loadings are statistically significant because values of t-statistics are greater than 1.96. Composite reliability of 0.92 indicates an internal consistency among those items, which makes the measure for the objectivity in performance evaluation and rewards reliable.

Performance measures	Outer loadings	t-statistic (Bootstrap)	CR
1. Pre-set targets of performance measures are documented	0.831	19.511	0.92
2. Pre-set targets of performance measures are quantified	0.797	16.479	
3. The top management uses objective information from the information systems to evaluate the department managers' performance	0.718	6.789	
4. The top management expresses the department managers' performance in quantitative terms	0.880	34.374	
5. The department managers' bonus is based on the superior's judgment in quantitative terms about their performance	0.816	14.361	
6. The department managers' bonus is based on objective information from the information systems about their performance	0.783	12.704	

Table 6.16: Item loadings and composite reliability of the objectivity in performance evaluation and rewards

As shown in Table 6.17, outer loadings of 8 items measuring organisational performance are greater than 0.708 and statistically significant because all values of t-statistics are greater than 1.96. These items are internally consistent, which is demonstrated by composite reliability of 0.96. For this reason, the selected measure of the organisational performance is reliable.

Items	Outer loadings	t-statistic (Bootstrap)	CR
1. The percentage of profit before tax on sale	0.795	18.206	0.96
2. Return on asset (ROA)	0.830	22.908	
3. Return on investment (ROI)	0.839	24.154	
4. Sales growth	0.895	31.702	
5. Product quality	0.907	51.953	
6. Customer satisfaction	0.905	44.917	
7. Market share	0.877	34.795	
8. Employee satisfaction	0.865	35.404	

Table 6.17: Item loadings and composite reliability of the organisational performance

The measure of PEU consists of 10 items as shown in Table 6.18. However, the item number 7, namely “our firm's external technological environment has become more unpredictable” was dropped out because its outer loading is lower than 0.4. As a result, a measure of PEU made up by 9 items as shown in Table 6.18. Outer loadings of these items are greater than 0.4. Six items have their outer loadings are greater than 0.708 while three items (item number 6, 7 and 9) have their outer loading below 0.708 (0.671, 6.646 and 0.556 respectively). T-statistics greater than 1.96 indicates significances on these items and the corresponding construct. Composite reliability of 0.91 indicates that PEU made up from these items has its internal consistency. Thus, the measure is reliable.

As shown in Table 6.19, outer loadings of six items made up a measure for task uncertainty are greater than 0.708. T-statistics are greater than 1.96 that indicates significances on relationships between the items and the corresponding constructs. Internal consistency of the items is indicated by composite reliability of 0.9. Thus, the measure of task uncertainty is reliable.

<b>Items</b>	<b>Outer loadings</b>	<b>t-statistic (Bootstrap)</b>	<b>CR</b>
1. My firm's competitors provide similar products to mine with cheaper prices or the same prices but with more advanced features or functions	0.817	22.952	0.91
2. New products and/or services have emerged more often in my industry over the last five years	0.784	17.540	
3. Product's marketing and distribution are very competitive in my industry	0.754	16.780	
4. It is more challenging for my firm to maintain or improve the market share in my industry	0.794	23.300	
5. Competitors have done things threatening to my firm	0.814	22.212	
6. My firm's external economic environment has become more unpredictable	0.671	8.848	
7. The tastes and preferences of my firm's customers have become more unpredictable	0.646	8.055	
8. The behaviours of competitors has become more unpredictable	0.747	12.551	
9. The legal, political and economic constraints surrounding my firm stayed the same	0.556	6.424	

Table 6.18: Item loadings and composite reliability of PEU

<b>Items</b>	<b>Outer loadings</b>	<b>t-statistic (Bootstrap)</b>	<b>CR</b>
1. Established materials (manuals, standards, directives, statutes, technical and professional books, and the like) cover the work.	0.799	11.427	0.90
2. One needs to know a lot of procedures and standard practices to do the work well	0.824	12.067	
3. Reliance on established procedures and practices is important	0.667	6.783	
4. A work is derived from various events	0.743	15.386	
5. It takes a lot of experience and training to know what to do when a problem arises	0.846	9.178	
6. Tasks require an extensive and demanding search for a solution	0.761	7.144	

Table 6.19: Item loadings and composite reliability of task uncertainty

Although Smart-PLS emphasises composite reliability as an alternative measure of internal consistency, Cronbach's Alpha are still reported by the software. Table 6.20 shows that Cronbach's Alpha for all constructs of this study is greater than 0.7, which indicates reliabilities of the measures.

<b>Variables</b>	<b>Cronbach's Alpha</b>
1. The adoption of NFPMs	0.839
2. Decentralisation of decision-making	0.844
3. Participation of lower level managers in setting targets for organisational performance	0.889
4. Interactive use of organisational performance measures	0.866
5. Objectivity of performance evaluation and rewards	0.891
5. Organisational performance	0.951
6. PEU	0.892
7. Task uncertainty	0.869

Table 6.20: Cronbach's Alpha of measures

### 6.5.2 Assessing validities of constructs

Smart-PLS enables convergent and discriminant validities of constructs in a study to be evaluated (Hair *et al.*, 2014). The former is assessed through AVE in Table 6.21. The AVE of measures is greater than 0.5, which satisfies the condition to indicate convergent validity for constructs operationalised by the corresponding measures. In other words, a set of selected items measuring each construct is highly inter-correlated. The items share considerable amount of variance because of the underlying construct rather than measurement error.

Table 6.22 shows statistics that indicate discriminant validity. This type of validity enables eight constructs used in the model to be distinguished from each other. In other words, each construct in this study has its uniqueness capturing phenomenon that is not captured by other constructs in the model. The condition for an indication of discriminant validity in Smart-PLS is the square root of each construct's AVE is greater than its highest correlation with any other construct in the model. The square root of each construct's AVE is diagonal elements (bold) while the correlations among constructs are off-diagonal elements. Diagonal elements are greater than off-diagonal elements indicates discriminant validity of constructs.

	<b>AVE</b>
<b>NFPM</b>	0.61
<b>EVA</b>	0.65
<b>PER</b>	0.75
<b>INTER</b>	0.71
<b>PEU</b>	0.54
<b>DDM</b>	0.56
<b>TASK</b>	0.60
<b>PART</b>	0.64

Table 6.21: Convergent validity among constructs

	<b>NPM</b>	<b>EVA</b>	<b>PER</b>	<b>INTER</b>	<b>PEU</b>	<b>STRU</b>	<b>TASK</b>	<b>PART</b>
<b>NFPM</b>	<b>0.781</b>							
<b>EVA</b>	0.554	<b>0.806</b>						
<b>PER</b>	0.623	0.454	<b>0.865</b>					
<b>INTER</b>	0.570	0.327	0.577	<b>0.846</b>				
<b>PEU</b>	0.626	0.465	0.643	0.614	<b>0.736</b>			
<b>DDM</b>	0.483	0.577	0.595	0.472	0.599	<b>0.748</b>		
<b>TASK</b>	0.318	0.438	0.332	0.396	0.366	0.474	<b>0.775</b>	
<b>PART</b>	0.572	0.518	0.744	0.666	0.710	0.563	0.458	<b>0.802</b>

Table 6.22: Discriminant validity among constructs

## 6.6 Inner model assessment for testing hypotheses

This section presents results from testing the inner model regarding selection form of fit and interaction form of fit through three models. The former refers to impacts of PEU and task uncertainty on PMAS practices while the latter concerns moderating role of these contingent variables on organisational performance. The model 1 (see Figure 6.1) focuses on impacts of PEU and task uncertainty on PMAS practices and impacts of PMAS practices on organisational performance.<sup>12</sup> The model 2 (see Figure 6.2) focuses on moderating effects of PEU on organisational performance while the model 3 (see Figure 6.3) concerns moderating effects of task uncertainty on organisational performance. The blue circles present the research constructs made up by their measures' items. For example, PART presents participation of lower level managers in setting targets for organisational performance made up by the six items mentioned in section 5.6.1.3 (participation 01-06). The yellow circles present the moderating variables manifesting interactions between PEU and PMAS practices (Model 2) and task uncertainty and PMAS practices (Model 3). Numbers inside the blue circles are  $R^2$  that indicates the joint impacts of contingent variables on PMAS practices, the joint effects of PMAS practices on organisational performance (Model 1), as well as the joint effects of PMAS practices and interactions between PEU and PMAS practices on organisational performance (Model 3). Numbers between the two research constructs are their  $\beta$  coefficients.

<sup>12</sup> Relationships between PEU and task uncertainty are included in the model 1 in order to make cross-comparisons between three models. See earlier discussions on the inner model in section 5.7.3.

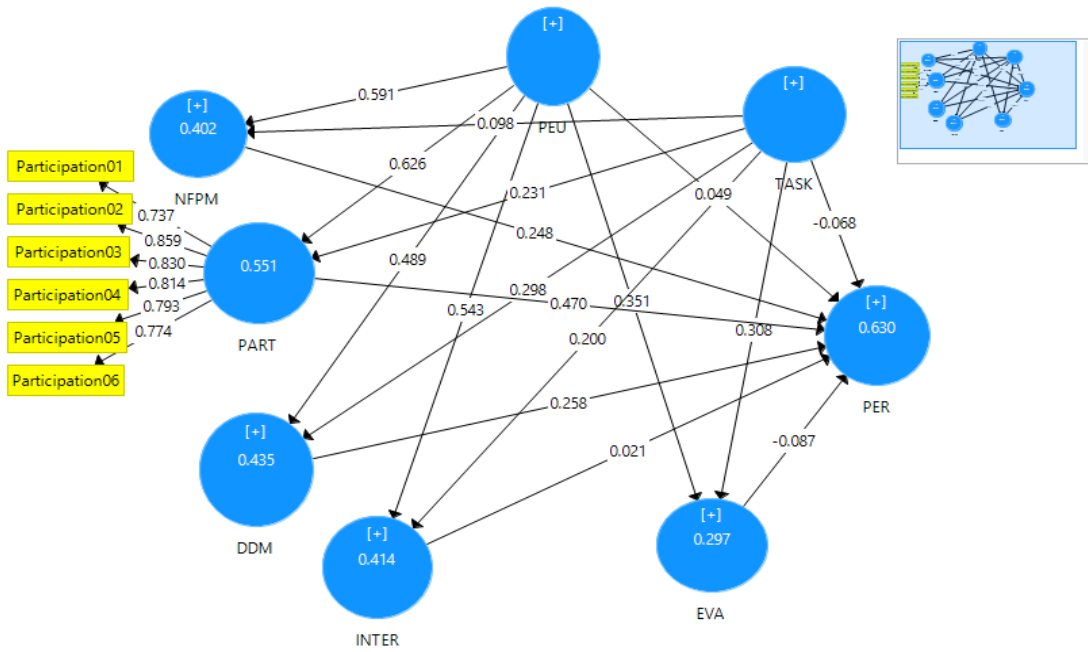


Figure 6.1: Impacts of PEU and task uncertainty on PMAS practices and impacts of PMAS practices on organisational performance

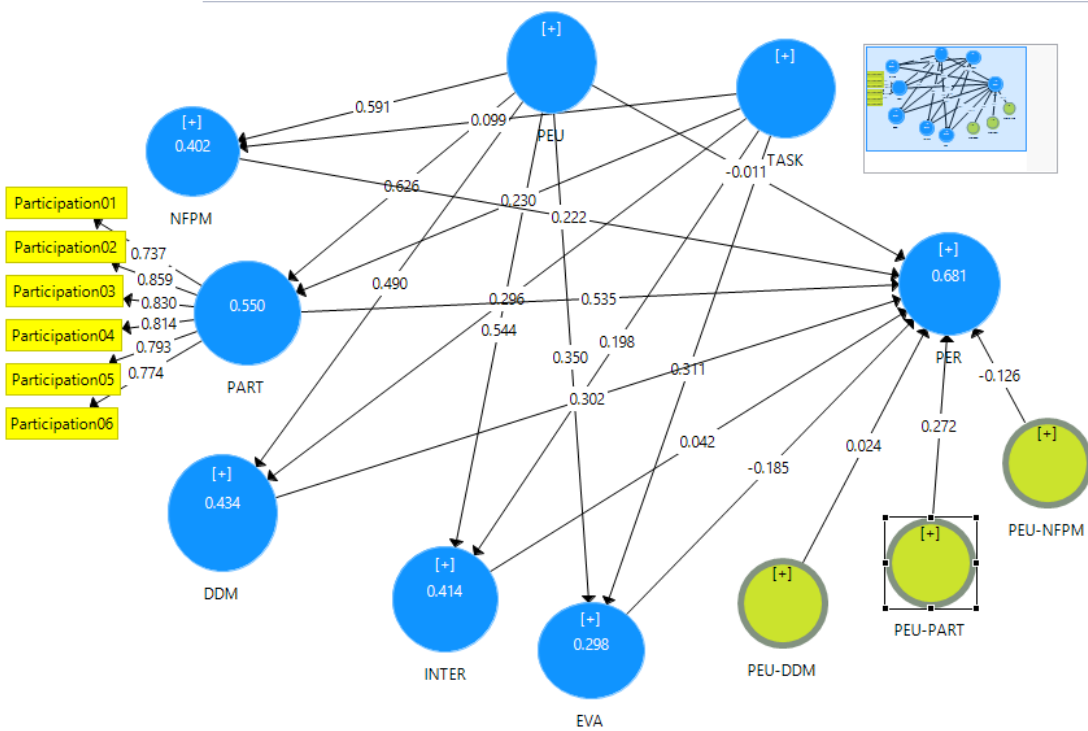


Figure 6.2: Moderating effects of PEU on relationships between PMAS practices and organisational performance

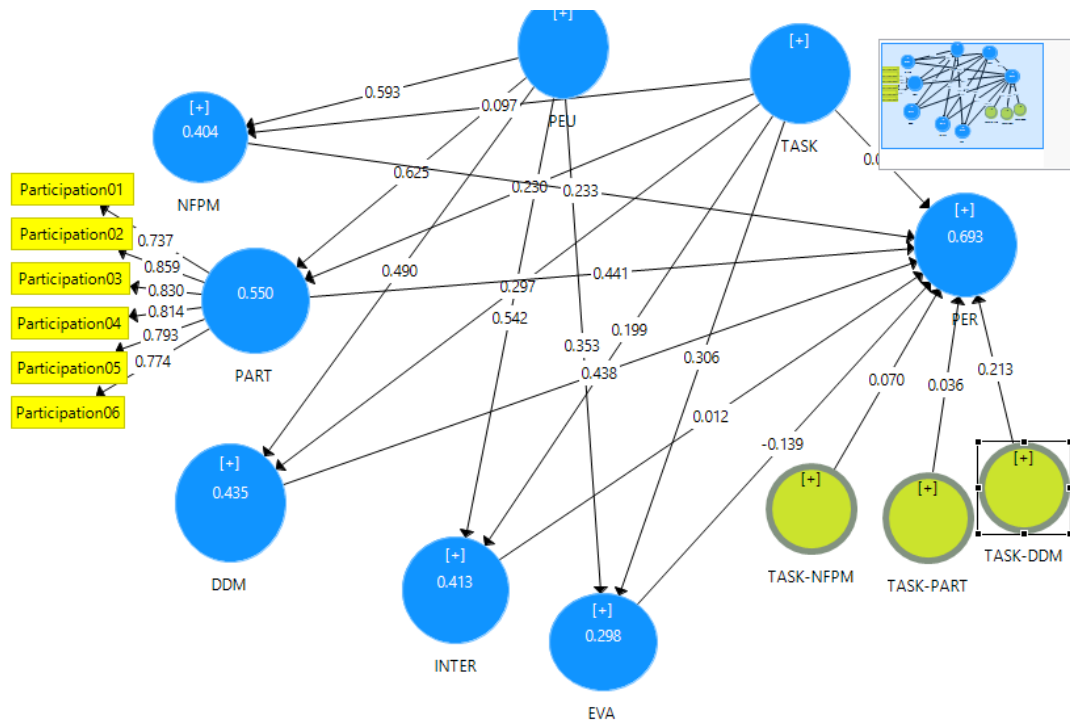


Figure 6.3: Moderating effects of task uncertainty on relationships between PMAS practices and organisational performance

### 6.6.1 Detecting the problem of multicollinearity

As mentioned in the section 5.7.5, multicollinearity needs to be detected before assessing the inner model. As shown in Table 6.23 - 6.25, VIFs of the predictive variables in three models that is presenting in the section 6.6 are much lower than 5, a criterion for multicollinearity (Hair *et al.*, 2014). This indicates that multicollinearity is not a problem for testing the inner model.

	DDM	EVA	INTER	NFPM	PART	PER
<b>DDM</b>						2.042
<b>EVA</b>						1.934
<b>INTER</b>						2.180
<b>NFPM</b>						2.109
<b>PART</b>						2.747
<b>PER</b>						
<b>PEU</b>	1.156	1.156	1.156	1.156	1.156	2.647
<b>TASK</b>	1.156	1.156	1.156	1.156	1.156	1.465

Table 6.23: Collinearity statistic (VIF)-Model 1

	<b>DDM</b>	<b>EVA</b>	<b>INTER</b>	<b>NFPM</b>	<b>PART</b>	<b>PER</b>
<b>DDM</b>						2.608
<b>EVA</b>						2.003
<b>INTER</b>						2.186
<b>NFPM</b>						2.219
<b>PART</b>						3.028
<b>PER</b>						
<b>PEU</b>	1.154	1.154	1.154	1.154	1.154	2.745
<b>TASK</b>	1.154	1.154	1.154	1.154	1.154	
<b>PEU-DDM</b>						2.545
<b>PEU-NFPM</b>						3.197
<b>PEU-PART</b>						3.519

Table 6.24: Collinearity statistic (VIF)-Model 2

	<b>DDM</b>	<b>EVA</b>	<b>INTER</b>	<b>NFPM</b>	<b>PART</b>	<b>PER</b>
<b>DDM</b>						2.389
<b>EVA</b>						2.137
<b>INTER</b>						2.209
<b>NFPM</b>						2.322
<b>PART</b>						2.451
<b>PER</b>						
<b>PEU</b>	1.157	1.157	1.157	1.157	1.157	
<b>TASK</b>	1.157	1.157	1.157	1.157	1.157	1.638
<b>TASK-DDM</b>						2.133
<b>TASK-NFPM</b>						2.150
<b>TASK-PART</b>						1.962

Table 6.25: Collinearity statistic (VIF)-Model 3

### 6.6.2 Impacts of PEU and task uncertainty on PMAS practices

Regarding impacts of contingency variables on the adoption of NFPMs, hypothesis 1 postulated that a positive correlation between the adoption of NFPMs and PEU. The result shown in Table 6.26 supports hypothesis 1. The  $\beta$  coefficient between PEU and the adoption of NFPMs is 0.591 and statistically significant ( $p < 0.01$ ). In contrast, the result does not support hypothesis 6 which indicated that a positive relationship between task uncertainty and adoption of NFPMs. The  $\beta$  coefficient between task uncertainty and NFPMs is 0.098 and is not statistically significant. A  $R^2$  adjusted of 0.39 indicates that PEU can be used to explain 38.8% of the adoption of NFPMs in the context of Vietnam.



Hypothesis 2 and 7 postulated positive correlations between decentralisation of decision-making and PEU task uncertainty respectively. The results support the aforementioned hypotheses. The  $\beta$  coefficient between decentralisation of decision-making and PEU is 0.489 and statistically significant ( $p < 0.01$ ) while the  $\beta$  coefficient between decentralisation of decision-making and task uncertainty is 0.298 and statistically significant ( $p < 0.01$ ). An adjusted  $R^2$  of 0.422 indicates that PEU and task uncertainty can be used to explain 42.2% of decentralised decision-making in the context of Vietnam.

Hypothesis 3 and 8 postulated that participation of lower managers in setting targets for organisational performance is positively associated with PEU and task uncertainty respectively. The results support these expectations to different degrees. The  $\beta$  coefficient between PEU and participation is 0.626 and statistically significant ( $p < 0.01$ ). The  $\beta$  coefficient between task uncertainty and the participation is 0.231 and statistically significant ( $p < 0.05$ ). An adjusted  $R^2$  of 0.54 indicates that PEU and task uncertainty can be used to explain 54% of the participation in the context of Vietnam.

Hypothesis 4 and 9 postulated that using NFPMs interactively is positively correlated with PEU and task uncertainty. The results support our hypotheses. The  $\beta$  coefficient between PEU and interactive use of NFPMs is 0.543 and statistically significant ( $p < 0.01$ ) while the  $\beta$  coefficient between task uncertainty and the interactive use of NFPMs is 0.2 and statistically significant ( $p < 0.5$ ). An adjusted  $R^2$  of 0.401 indicates that PEU and task uncertainty can be used to explain 40.1% of the interactive use of NFPMs in the context of Vietnam.

Hypothesis 5 and 10 postulated that the objectivity of performance evaluation and rewards is negatively associated with PEU and task uncertainty respectively. The results do not support those hypotheses. We found that objectivity of performance evaluation and rewards are positively correlated with PEU and task uncertainty in the context of Vietnam. The  $\beta$  coefficient between the objectivity and PEU is 0.351 and statistically significant ( $p < 0.01$ ) while that between objectivity and task uncertainty is 0.308 and statistically significant ( $p < 0.05$ ). An adjusted  $R^2$  of 0.281 indicates that task uncertainty can be used to explain 28.1% of the objectivity of performance evaluation and rewards in the context of Vietnam.

### ***6.6.3 Impacts of PMAS practices on organisational performance***

With respect to the consequences of PMAS practices on organisational performance, as shown in Table 6.27, the adoption of NFPMs, decentralisation of decision-making and participation of lower managers in setting targets for organisational performance are positively correlated with organisational performance. In contrast, there is inadequate evidence to draw conclusions on relationships between organisational performance and the interactive use of NFPMs, and the objectivity of performance evaluation and rewards. A  $R^2$  adjusted of 0.598 indicates that three first PMAS practices namely the adoption of NFPMs, decentralisation of decision-making and participation of lower level managers in setting targets for organisational performance explained 59.8% of organisational performance. The  $\beta$  coefficient between three PMAS practices, namely the adoption of NFPMs (H11), decentralisation of decision-making (H12), and the participation of lower level managers in setting targets for organisational performance (H13), and organisational performance are 0.248 ( $p < 0.05$ ), 0.258 ( $p < 0.01$ ), 0.470 ( $p < 0.01$ ) respectively. A  $\beta$  coefficient of 0.021 indicates that the interactive use of NFPMs (H14) appears to have positive effects on organisational performance whereas a  $\beta$  coefficient of -0.087 demonstrates that the objectivity of performance evaluation and rewards (H15) seems to have negative effects on organisational performance. These results appear to support the relationships specified by research hypotheses. However, the insignificance of t-statistics (0.196 and 1.086 respectively) does not enable the researcher to reach that conclusion with a great deal of confidence.

It appears that PEU has a positive effect on organisational performance (a  $\beta$  of 0.049) while task uncertainty negatively impact organisational performance (a  $\beta$  of -0.068) However, critical values of t-statistics (0.417 and 0.709 respectively) are insignificant, which does not allow the conclusions to be confidently reached.

Path	H	$\beta$ coefficient	R <sup>2</sup>	R <sup>2</sup> adjusted	t-statistics
<i>Effect on the adoption of NFPMs</i>			0.402	0.388	
PEU > NFPM	H1	0.591***			8.119
TASK > NFPM	H6	0.098			1.193
<i>Effect on decentralisation</i>			0.435	0.422	
PEU > DDM	H2	0.489***			7.019
TASK > DDM	H7	0.298***			3.776
<i>Effect on participation</i>			0.551	0.54	
PEU > PART	H3	0.626***			8.636
TASK > PART	H8	0.231**			2.750
<i>Effect on interactive use</i>			0.414	0.401	
PEU > INTER	H4	0.543***			6.090
TASK > INTER	H9	0.200**			2.051
<i>Effect on objectivity of PE&amp;R</i>			0.297	0.281	
PEU > EVA	H5	0.351***			3.863
TASK > EVA	H10	0.308**			2.899

All hypotheses are two tailed test; \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Table 6.26: The impacts of PEU and tasks uncertainty on PMAS practices

Path	H	$\beta$ coefficient	R <sup>2</sup>	R <sup>2</sup> adjusted	t-statistics
<i>Effects of PMAS practices on organisational performance</i>			0.630	0.598	
NFPM>PER	H11	0.248**			2.489
DDM>PER	H12	0.258***			2.726
PART>PER	H13	0.470***			4.392
INTER>PER	H14	0.021			0.196
EVA>PER	H15	-0.087			1.086
PEU>PER		0.049			0.417
TASK>PER		-0.068			0.709

All hypotheses are two tailed test; \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Table 6.27: Impacts of PMAS practices on organisational performance

#### ***6.6.4 Moderating effects of PEU and task uncertainty on the relationship between PMAS practices and organisational performance***

The study aimed to test moderating effects of PEU and task uncertainty on relationships between five PMAS practices (hypothesis 16 and 17). However, only three PMAS practices, namely the adoption of NFPMs, participation of lower managers in setting targets for organisational performance, and decentralisation of decision-making, that enhance organisational performance (see section 6.6.2) are retained. Therefore, the study only tests moderating effects of PEU and task uncertainty on relationships between the aforementioned PMAS practices and organisational performance (hypothesis 16<sub>a</sub>, 16<sub>b</sub>, 16<sub>c</sub>, 17<sub>a</sub>, 17<sub>b</sub>, and 17<sub>c</sub>).

The moderating effects of PEU and task uncertainty on relationships between PMAS practices and organisational performance are separately tested by two models. The key reason for that lies in the sample size of the study. That is, a sample size of 90 only enables maximum 9 arrows to point at a latent variable in the model. Therefore, all relationships in the model 1 are retained in the model 2 except the relationship between task uncertainty and organisational performance. Three new variables expressing interactions between PEU and the adoption of NPFMs, participation of lower managers in participating in setting targets for organisational performance and decentralisation of decision-making respectively are created (see Figure 6.2). Similarly, all relationships in the model 1 are retained in model 3 except the relationship between PEU and organisational performance. Three new variables expressing interactions between task uncertainty and the adoption of NPFMs, participation of lower managers in participating in setting targets for organisational performance and decentralisation of decision-making respectively are created (see Figure 6.3).

Regarding moderating effects of PEU on the relationships between three aforementioned PMAS practices on organisational performance, quantitative analyses indicate that only the interaction between PEU and participation of lower managers in setting targets for organisational performance positively impacts organisational performance while interactions between PEU and the two remaining PMAS practices do not, as shown in Table 6.28. Firstly, a  $\beta$  of 0.272 ( $p < 0.01$ ) indicates a moderating effect of PEU on the relationship between the practice of participation and organisational performance is statistically significant, which confirms hypothesis 16<sub>c</sub>. Secondly, the results indicate a positive effect of the interaction between PEU and the adoption of NPFMs on organisational performance ( $\beta = 0.024$ ), but this relationship is statistically insignificant ( $t$ -statistics = 1.308). Therefore, the hypothesis 16<sub>a</sub> is not supported. Thirdly, the results indicate a negative impact of the interaction between PEU and decentralisation of decision-making on organisational performance ( $\beta = -0.126$ ). Moreover, this relationship is not statistically significant ( $t$ -statistic = 0.232). Hence, the finding is not in line with the postulation of the hypothesis 16<sub>b</sub>.

Concerning moderating effects of task uncertainty on relationships between PMAS practices and organisational performance, the findings indicate that only the interaction between task uncertainty and decentralisation of decision-making has a positive effect

on organisational performance while the effects of interactions between task uncertainty and the two remaining PMAS practices on organisational performance were not evident, as shown in Table 6.28. Specifically, a  $\beta$  of 0.213 indicates that interaction between task uncertainty and decentralisation of decision-making positively impacts organisational performance, which is statistically significant ( $p < 0.05$ ). As a result, the finding support the expectation of the hypothesis 17<sub>b</sub>. In contrast, the interaction between task uncertainty and participation of lower managers in setting targets for organisational performance appears to have a positive effect on organisational performance ( $\beta = 0.036$ ), but a critical value of t-statistic at 0.477 does not allow this conclusion to be reached with a great deal of confidence. Thus, the hypothesis 17<sub>c</sub> is not supported. Similarly, the interaction between task uncertainty and the adoption of NFPMs appears to have a positive effect on organisational performance ( $\beta = 0.07$ ), but this relationship is not statistically significant (t-statistic = 0.771).

Path	H	$\beta$ coefficient	R <sup>2</sup>	R <sup>2</sup> adjusted	t-statistics
<i>Moderating effects of PEU (Model 2)</i>					
PEU-NFPM>PER	H16 <sub>a</sub>	0.024	6.681	0.646	1.308
PEU-DDM>PER	H16 <sub>b</sub>	-0.126			0.232
PEU-PART>PER	H16 <sub>c</sub>	0.272***			2.921
PEU >PER		-0.011			1.104
<i>Moderating effects of task uncertainty (Model 3)</i>					
TASK-NFPM>PER	H17 <sub>a</sub>	0.070	0.693	0.658	0.775
TASK-DDM>PER	H17 <sub>b</sub>	0.213**			2.369
TASK-PART>PER	H17 <sub>c</sub>	0.036			0.468
TASK >PER		0.022			0.477

All hypotheses are two tailed test; \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Table 6.28: Moderating effects of PEU on the relationships between PMAS practices  
Impacts of PMAS practices on organisational performance

### 6.6.5 Comparisons between three models

This section compares the results on testing hypothesis from three models presented in the three last sections. By doing so, research conclusions might suffer less biases when the sample size does not allow moderating effects of PEU and task uncertainty to be testing in the same model.

As shown in Table 6.29, there is no significant change in  $\beta$  coefficient,  $R^2$  adjusted and t-statistics regarding effects of PEU and task uncertainty on PMAS practices between the three models. A slight change in statistical numbers does not adjust the level of statistical significance of most tested hypotheses. For instance,  $R^2$  adjusted of PEU and task uncertainty on the adoption of NFPMs is 0.388 (model 1), 0.388 (model 2) and 0.390 (model 3). The  $\beta$  coefficients between the adoption of NFPMs and PEU and task uncertainty are 0.591 and 0.098 respectively in the model 1. These two  $\beta$  coefficients are very close to that in the model 2 (0.591 and 0.99 respectively) and in the model 3 (0.593 and 0.97 respectively). T-statistics of the  $\beta$  coefficient between PEU and the adoption of NFPMs is 8.119 (model 1), 8.221 (model 2) and 8.387 (model 3). T-statistics of the  $\beta$  coefficient between task uncertainty and the adoption of NFPMs are 1.193 (model 1), 1.216 (model 2) and 1.194 (model 3).

Table 6.29 shows no significant change in  $\beta$  coefficients between PMAS practices and organisational performance and their corresponding t-statistics, except statistics on the relationship between objectivity in performance evaluation and rewards and organisational performance. Specifically, the objectivity negatively impacts organisational performance, but the relationship is not statistically significant in the model 1 and 2 ( $\beta = -0.087$  and t-statistic = 1.086;  $\beta = -0.188$  and t-statistic = 1.623 respectively). However, the objectivity positively impacts organisational performance and this relationship is statistically significant in the model 3 ( $\beta = 0.139$  and t-statistic = 2.379). PMAS practices can explain 59.8% of organisational performance in the model 1, which increases in the model 2 and 3 ( $R^2$  adjusted = 0.598; 0.646 and 0.658 respectively). This indicates contribution of moderating variables in predicting organisational performance. In brief, the aforementioned comparisons contribute to confidence of research conclusions concerning with effects of PMAS practices on organisational performance and effects of interactions between contingent variables and PMAS practices on organisational performance.

Path	Hypothesis	$\beta$ coefficient			$R^2$ adjusted			t-statistics		
		Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Impacts of PEU and task uncertainty on PMAS practices</i>										
PEU > NFPM	H1	0.591***	0.591***	0.593***	0.388	0.388	0.390	8.119	8.221	8.387
TASK > NFPM	H6	0.098	0.099	0.097				1.193	1.216	1.194
PEU > DDM	H2	0.489***	0.490***	0.490***	0.422	0.421	0.423	7.019	6.945	6.856
TASK > DDM	H7	0.298***	0.296***	0.297***				3.776	3.740	3.837
PEU > PART	H3	0.626***	0.626***	0.625***	0.54	0.540	0.540	8.636	8.760	8.718
TASK > PART	H8	0.231**	0.230***	0.230**				2.750	2.745	2.725
PEU > INTER	H4	0.543***	0.544***	0.542***	0.401	0.400	0.400	6.090	6.079	5.943
TASK > INTER	H9	0.200**	0.198**	0.199**				2.051	1.990	2.006
PEU > EVA	H5	0.351***	0.350***	0.353***	0.281	0.282	0.282	3.863	3.948	3.901
TASK > EVA	H10	0.308**	0.311**	0.306**				2.899	2.928	2.882
<i>Effects of PMAS practices on organisational performance</i>										
NFPM>PER	H11	0.248**	0.222**	0.233**	0.598	0.646	0.658	2.489	2.104	2.453
DDM>PER	H12	0.258***	0.304***	0.438***				2.726	2.940	4.457
PART>PER	H13	0.470***	0.537***	0.441***				4.392	4.878	4.676
INTER>PER	H14	0.021	0.043	0.012				0.196	0.379	0.119
EVA>PER	H15	-0.087	-0.188**	-0.139				1.086	2.379	1.623
PEU>PER		0.049	-0.011					0.417	0.104	
TASK>PER		-0.068		0.022				0.709		0.252

Path	Hypothesis	$\beta$ coefficient			$R^2$ adjusted			t-statistics		
		Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Moderating effects of PEU</i>										
PEU-NFPM>PER	H16 <sub>a</sub>		0.024						1.308	
PEU-DDM>PER	H16 <sub>b</sub>		-0.126						0.232	
PEU-PART>PER	H16 <sub>c</sub>		0.272***						2.921	
PEU >PER			-0.011						1.104	
<i>Moderating effects of task uncertainty</i>							0.658			
TASK-NFPM>PER	H17 <sub>a</sub>			0.070						0.775
TASK-DDM>PER	H17 <sub>b</sub>			0.213**						2.369
TASK-PART>PER	H17 <sub>c</sub>			0.036						0.468
TASK >PER				0.022						0.477

All hypotheses are two tailed test; \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Table 6.29: Comparisons between three models



The results of testing the research hypotheses are summarized in Table 6.30 as follows:

<b>Hypothesis</b>	<b>Direction of relationship</b>	<b>Accept/Reject</b>
H1: Impacts of PEU on the adoption of NFPMs	Positive	<i>Accepted</i>
H2: Impacts of PEU on decentralisation of decision-making	Positive	<i>Accepted</i>
H3: Impacts of PEU on participation of lower managers in setting targets for organisational performance	Positive	<i>Accepted</i>
H4: Impacts of PEU on interactive use of NFPMs	Positive	<i>Accepted</i>
H5: Impacts of PEU on objectivity of organisational performance and rewards	Negative	Rejected
H6: Impacts of task uncertainty on adoption of NFPMS	Positive	Rejected
H7: Impacts of task uncertainty on organisational structure	Positive	<i>Accepted</i>
H8: Impacts of task uncertainty on participation in setting targets for organisational performance	Positive	<i>Accepted</i>
H9: Impacts of task uncertainty on interactive use of NFPMs	Positive	<i>Accepted</i>
H10: Impacts of task uncertainty on objectivity of organisational performance and rewards	Negative	Rejected
H11: Impacts of adoption of NFPMs on organisational performance	Positive	<i>Accepted</i>
H12: Impacts of decentralised decision-making on organisational performance	Positive	<i>Accepted</i>
H13: Impacts of participation of lower level managers in setting targets for organisational performance on organisational performance	Positive	<i>Accepted</i>
H14: Impacts of interactive use NFPMs on organisational performance	Positive	Rejected
H15: Impact of objectivity in evaluating and rewards on organisational performance	Negative	Rejected
H16 <sub>a</sub> : Impacts of interactions between PEU and the adoption of NFPMs on organisational performance	Positive	Rejected
H16 <sub>b</sub> : Impacts of interactions between PEU and participation of lower level managers in setting targets for organisational performance on organisational performance	Positive	<i>Accepted</i>
H16 <sub>c</sub> : Impacts of interactions between PEU and decentralisation of decision-making on organisational performance	Positive	Rejected
H17 <sub>a</sub> : Impacts of interactions between task uncertainty and the adoption of NFPMs on organisational performance	Positive	Rejected
H17 <sub>b</sub> : Impacts of interactions between task uncertainty and participation of lower level managers in setting targets for organisational performance on organisational performance	Positive	Rejected
H17 <sub>c</sub> : Impacts of interactions between task uncertainty and decentralisation of decision-making on organisational performance	Positive	<i>Accepted</i>

Table 6.30: The results of testing the research hypotheses

## 6.7 Summary

The chapter has presented overall quantitative findings regarding five aspects of PMAS practices in relation to PEU, task uncertainty and organisational performance in Vietnam. Firstly, these two variables are responsible for considerable variations of PMAS practices. The quantitative analysis indicates positive effects of PEU and task uncertainty on three PMAS practices, namely decentralisation of decision-making, participation of lower level managers in setting targets for organisational performance and interactive use of NFPMs. An increase in PEU results in a greater extent of the adoption of NFPMs whereas it was not evidenced an increase in task uncertainty leads to a greater extent of the adoption of NFPMs. Surprisingly, the findings indicate a positive relationship between PEU and task uncertainty and objectivity rather than subjectivity in performance evaluation and rewards in listed Vietnamese companies.

Secondly, the quantitative analysis indicates that three PMAS practices, namely the adoption of NFPMs, decentralisation of decision-making and participation of lower level managers in setting targets for organisational performance might enhance organisational performance. However, the quantitative analysis appears to find no evidence on positive effects of interactive use of NFPMs and objectivity in performance evaluation and rewards on organisational performance. Thirdly, the quantitative analysis indicates that only interactions between PEU and participation of lower level managers in setting targets for organisational performance as well as interactions between task uncertainty and decentralisation of decision-making lead to enhancement of organisational performance.

## **Chapter 7: An Exploration of PMAS Practices, Their Antecedents and Their Consequences for Organisational Performance**

The chapter consists of four sections. The first three sections (section 7.1, 7.2, and 7.3) are organised in accordance with the same structure. Each of the sections first provides a brief overview of the case study before qualitative findings on PMAS practices in relation to PEU, task uncertainty, organisational culture and organisational performance are presented. Then, the chapter focuses influences of organisational culture on shaping PMAS practices (section 7.5). After that, the section 7.4 presents findings concerning mechanisms through which PMAS practices influence organisational performance. These are followed by a summary of the chapter (section 7.6)

### **7.1. A case study of a Pharmaceutical Company**

#### ***7.1.1 A brief overview of the Pharmaceutical Company***

Being established in 1972 as a team to manufacture some fundamental medicines during the war time, the Pharmaceutical Company became a company of 100 full-time employees in 1993. The company was operating with low production ability. Reasons for this might lie in low medicine expenditure (0.5 to 1 USD per person per year) and insufficient medicine volume after the war. The company was owned 100% by the State before being transformed into a joint stock company in 2000. The ratio of shares held by the State significantly reduced to 45% from 100% as a result of a SOE equitization programme.

The company's securities have been listed on the stock exchange since 2008. Its authorized capital has been significantly increasing, from 3.68 million USD to 11.18 million USD over 5 years (from 2008 to 2013). Currently, the State holds 35% of the shares while a foreign organisation holds 36%. The remaining shares are held by top management (5%), employees (11%) and domestic investors (13%).

The company has been gradually standardized and modernised in terms of production technologies based on GMP-ASEAN, GMP-WHO, PIC/S or EU-GMP for better product management in order to respond to the demand for medicines and healthcare products in the domestic market. In 2013, Vietnam was reported as one of 17 world

leading countries in medicine expenditure (Hoang, 2014). An average annual growth of 18.8% was recorded between 2009 and 2013, and this rate was forecasted between 11% and 14% for the five following years (2014-2018). The company is currently operating in a business environment that consists of 178 pharmaceutical producers of which 80 companies produce traditional medicines - but the majority of 80 companies are small businesses.

This 735 full-time employee company produces more than 200 traditional and Western medicines for the domestic market. More than 50% of the revenue and 70% of the gross margin of the company come from traditional medicines. Approximately 90% of their raw materials have been locally sourced. The company has experienced impressive financial performance over the last decade. Its revenue in 2005 was 11.9 million USD which was tripled in 2009 and reached 76.5 million USD in 2013

### **7.1.2 PMASs**

#### *7.1.2.1 Vision, mission and strategies*

The vision, mission, and core value of the company are summarized as follows:

***Vision to 2020:***

By 2020, the company will become a strong economic group which provides healthcare products and services with research and development capabilities to develop high-tech products from natural ingredients.

***Mission:***

Providing healthcare products and services through a nice combination between modernity and country tradition in order to improve the quality of life in Vietnam;

Focus on customer satisfaction;

Create jobs and opportunities for individual development.

Create added value for stakeholders.

***Core values:***

Quality of product and service decides the existence and development of the business;

Create added value for customers, employees, and shareholders;

Creativity is the foundation of business development;

Coordination, sharing, commitment and implementing commitment are the foundation for the organisational culture.

Combination of modernity and tradition forms a core value of the organisational culture.

### *7.1.2.2 The adoption of NFPMs*

NFPMs started to be adopted after the company was listed on the Vietnam Stock Exchange in 2008. While financial measures (e.g. net profit, the percentage of profit before tax on sales or revenue growth rate) are still in use, NFPMs including relative market share, market growth rate, product quality and the number of new products launched have been added to measure organisational performance. Only NFPMs reflecting the internal business process (e.g. product quality or ratio of defective output/total output) were used at operational levels before equitization. NFPMs reflecting customer perspective (e.g. customer satisfaction or market share) and learning and growth perspective (e.g. the number of new products launched) were recently adopted. The Chief Accountant justified this adoption as follows:

“Before only financial figures were used to forecast future financial performance, this forecast becomes more confident with NFPMs because these measures tell more about the company’s market position compared with our competitors”.

This enables the company to improve its economic efficiency when the company started to be given more autonomy in various aspects of its businesses (e.g. finance, investments, production or pricing). The company was not provided with all required resources to achieve non-market-based performance targets as it did before. The State became only one of the company’s shareholders involved in the process of decision-making as per the Deputy General Director’s comments:

“Economic efficiency became a new criterion to evaluate company performance after equitization. The company itself started to set performance targets rather than following targets set by the State. Thus, the company needs to care for market factors rather than only focusing on production. Foreign shareholders bring new managerial practices. This is a reason why this SOE was equitized.”

In this sense, the adoption of NFPMs enables the company to collect information on market factors related to company’s businesses. More information concerning trends and patterns in market factors impacting company products are provided. The production started to be driven more by market demand and customer needs started to be given more serious attention in terms of prices and product qualities. This new management philosophy has gradually replaced old routines of running business in the centrally planned economy:

“Customer satisfaction that did not receive any attention in the past becomes a vital factor that influences company’s success. Intensity of competition has been increasing in many aspects of business such as products, marketing and distribution”

(The Deputy General Director)

Both financial targets and NFPMs enable the company to obtain more accurate prediction for its performance:

“Financial targets for the following years were fundamentally forecasted by using previous financial performance. Now the Planning Department is provided with more information from other departments, factories and equivalent units as additional information for setting those targets”

(Deputy General Director)

Managers at different organisational levels understand the importance of NFPMs at the operational level in achieving pre-set targets of their organisational performance as per explanations from the Factory Director:

“Although most performance measures reported do not change compared with before, they are used in relation to performance measures from other operational areas. In this way, a more complete picture of the company business is formed and helps us to run our activities smoothly”

The middle income group was identified as target customers of the company. Thus, the product price is set reasonably and is competitive. At the same time, the company also attempts to differentiate its products as “green products”. In order to enhance product quality, long term contracts of raw materials with local suppliers are established and its new subsidiaries started to grow raw materials for strategic products. The Deputy General Director remarked:

“When customers increase their awareness towards safety of products, ensuring good quality of ingredients is a good way to respond to higher product requirement from customers. By doing so, the company can enhance the trust of the customer in its products”

The production of fake products constitutes one of the challenges for companies as per the Deputy General Director:

“Similar products produced by smaller producers are selling with relatively cheaper prices. This becomes the most challenging issue for the company when laws related to patent registration and the management of fake commodities in Vietnam are still underdeveloped. Thus, issues related to package design, marketing and distribution channels through hiring trusted agency in different provinces are emphasised.”

While the current business strategy appears to be a combination of a cost leadership and differentiation strategy, no key success factors were developed. Thus, no link is built between business strategy, key success factors and NFPMs. The Chief Accountant clarifies:

“NFPMs are mainly used to provide information in different areas of company activities that cannot be captured by financial performance measures. Those measures allow us to know our customers better and locate company position in domestic markets. But I do not think those measures and business strategy are tightly linked together”

In brief, it is evident that NFPMs were adopted as a means for improving organisational performance in the pharmaceutical company because of its fast changing business environment. Even though these measures are not highly tied to the business strategy, they have been used in more integrative ways that help the company to obtain information related to market demand on company products for its performance enhancement.

#### *7.2.1.3 Decentralisation of decision-making*

According to the latest organisational chart (2014), the General Director is directly reported to by three Deputy General Directors. One is responsible for planning and setting performance targets, one manages operations of quality assurance, quality testing and research and development, and one is responsible for operations related to human resource management and administration. The general director is also reported to by the production director and the director of sales. The former manages operations of the traditional pharmaceutical factory while the latter is responsible for the operations of the head-quarters, sales department, and sales branches. Other departments, namely exports, imports and procurements, marketing, financial and accounting, and risk management also directly reported to the general director. This current organisational structure has witnessed several modifications compared with the previous one in 2012. Firstly, a new deputy general director was promoted to manage planning operations. These activities were directly and indirectly managed by the general director and the deputy directors who directly managed operations related to research and development, quality insurance, quality testing and indirectly managed operations related to planning, imports, exports, procurements and marketing. Secondly, two departments, namely marketing, and imports, exports and procurements, are no longer under the management

of this deputy director. Rather, they are directly managed by the general director.

Thirdly, a department of risk management was established. These changes are justified by The Deputy General Director as follows:

“The organisational structure has been changing after equitization. Obligations and rights of lower level managers started to be tied to each other in order to make them more responsible. This has been considered a good way to improve economic efficiency. After equitization, the company started to reorganize, group, eliminate and modify functions of various departments. Mediating managerial levels reduced a lot compared to before. Responsibilities of managers are clearly defined. Managers have more autonomy in various aspects related to their task. Top management does not involve in daily operational activities to think strategically. Expertise and knowledge of managers are used more effectively”

Clarification of responsibilities attached to each managerial position enables managers to co-operate with their peers better and know exactly what types of expertise need to be improved for their tasks. For the Marketing Manager: “managerial autonomy motivates me to update new knowledge and sharpen my expertise to improve the quality of my decisions”. The factory director added that the approval time for proposals has been shortened if decisions for these proposals cannot be made at the factory level. The new working routines were not warmly welcomed by all managers due to lack of confidence and fear of responsibility related to their mistakes in decision-making. Therefore, some managers still maintain the old routine of asking for approval from the superior as the Deputy General Director explained.

“Managers must take responsibility for the decisions they make now. It is new and challenging because managers got used to dependent decision-making styles for a long time. Moreover, autonomy in making decisions requires knowledge and flexibility”

In short, it is evident that the company have experienced a higher degree of decentralisation of decision-making than before, which is significantly enhanced by a clarification of responsibility attached to specific positions and a reduction of the number of mediating managerial levels now deemed necessary.

#### *7.2.1.4 Participation of organisational members in setting targets for organisational performance*

The top-down approach has been employed for setting organisational performance targets. It begins with a company plan, proposed by the Planning Department. Then, this plan is approved by the Board of Directors before gathering feedback from lower level managers to produce the final plan. A striking feature of this process lies in the dynamism of interaction



between top management and their subordinates. Even though lower level managers do not have the right to finalise organisational targets and their departmental targets, they no longer play a passive role as before. They are encouraged to provide feedback and information, especially for their departmental targets as per the Deputy General Director's explanation:

“Lower managers should know more than top management about their areas. Thus, their participation will contribute to the achievement of targets. They are people who implement those targets in their daily tasks. They are given more right to make decisions within their areas. Their opinions or suggestions have been taken into account as consultants before final decisions are made”

Sharing this notion, the Manager of R&D Department explains:

“The lower managers cannot finalise financial performance targets, but our opinions or suggestions on NFPMs are seriously taken into consideration by top management because this helps the company to achieve financial targets. For instance, our department needs to set the numbers of new traditional medicines introduced to market each year. And our department has significant influence on these targets”

Lower managers are able to negotiate with their superiors about levels of their performance targets. This helps them to know about their tasks and how to achieve them in a better way:

“When pre-set targets are very challenging, they can be adjusted in the process of negotiation. Sometimes, bonuses are given in order to motivate individuals to achieve such targets, but very difficult performance targets might demotivate and lower performance” (Marketing manager).

Even though participation in the process of setting performance targets can benefit the company, lower managers rarely state their requests, opinions or suggestions to their superiors without being asked. One of the reasons for this is related to risk avoidance as the Deputy General Directors explains:

“Vietnamese people prefer to avoid uncertainty, thus they prefer to behave in a way that they feel safe. Although creativity is encouraged, lower managers only respond to the Board of Directors when formal requests are sent”.

In departments where innovative ideas are required as a part of their tasks (e.g. Marketing Department or R&D Department), managers are more willing to state their opinions, or suggestions, before being asked by their superiors. The manager of the R&D Department explains:

“Providing or giving opinions or suggestions is our task. When a new idea fails to be implemented, the support of company directors is really important for us to keep our confidence in proposing new ideas next time”

The participation makes lower level managers feel respected, which has created intrinsic motivation for them in performing their tasks. They become more responsible for the achievement of the pre-set targets.

Not only lower level managers, but also employees are encouraged to participate more at the operational level. The Factory Director explains:

“Each year, the company has different programmes that encourage not only managers, but also ordinary employees to get involved in implementing pre-set targets. For example, we have a programme called “for customer” where each department treats other related departments as their real customers. In this way, the company’s activities are running more smoothly”.

In short, it is evident that lower level managers started to be involved in the process of target setting for their organisational performance. Mutual interactions between top management and their subordinates are enhanced. This enables top management to fulfil information needs of in the decision-making process related to forecasting performance targets and creates motivation for lower level managers to perform better. As a result, individual and organisational performances are both improved.

#### *7.2.1.5 Interactive use of PMASs*

NFPMs can be used more interactively because they are understood by managers across organisational levels. This is useful for discussing changes in different areas as the Factory Director clarifies:

“Changes in market factors such as customer needs or company competitors are conveyed to our factory now. Its consequences are that different activities started to be discussed more intensively than before including what the company should do to respond to the insights”

The Chief Accountant provides further information:

“If there are any changes in the market reported by Sales Department, then such changes will be intensively discussed in the meeting to search for external and internal reasons. After problems are identified, related departments need to take actions. Then outcomes will be reported to see what the company should do next”

However, NFPMs are not intensively used for discussing issues related to the business strategy because the absence of established key success factors renders NFPMs not tightly linked to the business strategy. Therefore, updated accounting measures provide

information for managers to improve the quality of their decisions and track the progress of pre-set targets. The Chief Accountant provides further details:

“Now the General Director requires more regular accounting reports, especially variance analyses on the sales price, cost and expense of some key products. Reasons related to significant deviations between the plan and actual outcomes are discussed and identified. Other departmental managers need to report their operations in detail before actions are taken to improve the situation”

In short, interactive use of NFPMs is intense for strategic purposes, these measures enabling the company to facilitate discussions between different managerial levels about changes, and actions needing to be taken when problems occurred. This can be considered a substantial change in using the accounting information since its equitization.

#### *7.2.1.6 Performance evaluation and rewards*

Performance evaluation and rewards have witnessed significant changes. The salary and bonus are clearly formulated in the company policies. Task difficulty is taken into account to formulate salary for different positions. Commission is applied for salespersons. The Factory Director clarifies:

“The salary is not only based on degree, but also based on performed task. The company has better salary and bonus policies for departmental managers (or equivalent units). Average salary per person is relatively competitive compared to other companies in the industry”.

Regarding subjectivity in evaluating and rewarding performance, the Factory Director comments:

“The formulation enables the lower managers to understand how their salary and bonus are calculated. I think it is a good way to maintain a high level of objectivity in evaluating and rewarding performance. However, the subjectivity can be occurred when performance is evaluated”.

#### *7.1.3 Case summary*

The pharmaceutical company has experienced numerous changes in its PMASs. Firstly, four dimensions of firm performance suggested by BSC are adopted not only at operational levels, but also at organisational levels. This enables the company to obtain a more complete picture of its performance than before. This is coupled with decentralisation of decision-making to lower level managers to greater extent - a higher degree of lower level managers' participation in setting targets for organisational

performance. Moreover, accounting information including NFPMs, started to be interactively used. Additionally, changes in performance evaluation and rewards are evident. These changes are highly associated with dramatic change in the company's external environment and the process of equitization, which have positive impacts on both individual and organisational performance. The case study reveals one aspect of organisational culture, associated with risk avoidance, which is considered a factor that hinders lower manager participation in the process of setting targets for their organisational performance.

## **7.2 A case study of the IT Company**

### ***7.2.1 An overview of IT Company***

Software Corporation was established in 1993 and operated as a Limited Company until being transformed into a Joint Stock Company in 2006 and has been listed on the stock exchange since 2010. This Corporation consists of three subsidiaries operating in three business areas: telecommunication and internet; information technology infrastructure and solutions; software, services and solutions related to software, data processing services, and software outsourcing. Except outsourcing, their products and services mainly serve the domestic market, especially governmental institutions and domestic companies.

#### ***7.2.1.1 Vision, missions and strategies***

The vision, missions and core values of the company are as follows:

***Vision 2015:***

Become one of the leading Vietnamese companies in areas of information technology, telecommunications, and e-business via creativity and innovation in research and application of high-tech solutions in order to contribute to movement of Vietnam's progress to the digital future.

***Mission:***

Building up bridges of digital life, digital infrastructure, and digital service to bring Vietnamese society to the digital future and shorten a gap in areas of information technology between developed and developing countries.

***Core value:***

Customer satisfaction, shareholder profit and improvement of spiritual and material lives for employees are important factors to company success

## **7.2.2 PMAS practices**

### **7.2.2.1 The adoption of NFPMs**

Organisational performance is financially and non-financially evaluated. While the former has been used for many years, NFPMs have been recently adopted. Customer satisfaction becomes an important indicator because of direct interactions between employees and customers during the process of providing products and services. This performance indicator is important for building a long-term relationship with customers in a more competitive market as the Deputy Director justifies:

“Our competitors become smarter in designing, marketing and pricing their products. Regarding outsourcing software, we have to face global competition in many aspects, especially price competition from companies in India or China”

Other performance indicators are used at the individual level but not at the organisational level. This might lie in the realisation of top management about the importance of connections between different performance dimensions.

### **7.2.2.2 Decentralisation of decision-making**

Decentralisation of decision-making was reflected in considerable changes in the company structure with establishment of three subsidiaries since 2006. As such, corporate managers are only involved in making decisions related to corporate strategies while top managers of subsidiaries are responsible for decisions related to their business strategies. The purpose of this change is to improve efficiency and effectiveness of business as the Deputy Director of Software Company clarifies:

“The new structure is considered one way to improve company performance. Performance targets are set for each subsidiary and subsidiaries’ managers have their autonomy in running business to meet such performance targets”

Each subsidiary is divided into smaller centres. For example, the company of software production has three centres. The first centre is responsible for providing products and services for domestic enterprises and governmental institutions. The second centre is operating as a mediating party between international corporations such as IBM or Microsoft and domestic customers in provision of management solutions. The third centre is outsourcing software for international customers. Centre managers have to take responsibility for achievement of pre-set targets. Each centre has to identify their most

important issues to improve their centre performance. The manager of the Outsourcing Centre describes the process of identifying the issues at his centre as follows:

“We had a long term plan of three years. The first year we focused on cutting losses by stopping carrying out any projects that go beyond our current ability. The second year we rejected projects that were not our priorities to start building our professions. The third year, we only focused on some technologies. After three years, the productivity was improved and the centre started making profit”

One benefit of this structure is clarified by the Deputy Director as follows:

“This structure created flexibility for lower managers. This requires them to be more active and more responsible in the process of decision-making. They are encouraged to work professionally and innovatively to achieve better performance”

#### *7.2.3.3 Participation in setting organisational performance targets*

Pre-set performance targets of the company are results of the negotiating process between centre managers and subsidiaries’ managers as the Outsourcing Centre’s manager described:

“Each year, the subsidiary has two meetings with corporate managers in Quarter 4 to discuss about performance targets of the company for the following year. The performance targets are based on performance achievement of previous year and strategic priorities for the following years. Each subsidiary’s director can negotiate the performance targets. When the pre-set targets are too difficult to achieve, the director of subsidiary can provide reasons to make the targets more achievable”

The same process is applied between the subsidiary’s managers and centre managers within each subsidiary. Centre managers now can first propose their budgetary targets for the following year and take responsibility for achieving those targets. In this way, “centre managers invest more time and energy, gather more information, propose alternatives and improve their professional knowledge to enhance quality of their decisions”, said the Deputy Director. Employees are also involved the process of setting targets at the centre level as the Manager of Outsourcing Centre describes:

“Salespersons have to set their individual targets, team leaders have to set their teams’ targets to form performance targets for our centre”.

On the one hand, formal meetings are regularly organised across organisational levels for discussions of various issues. These meetings only can gather standard opinions

from managers and employees rather than informal communication that is considered an important channel for gathering real, critical opinions and thoughts of lower managers and ordinary employees. The Sales Manager of the Solution Centre clarifies: “a too formal communicative styles adopted by top managers appears to prevent lower level managers and employees from giving their opinions, suggestions or critical thought, especially when the company workforce consists the majority of young people”

#### *7.2.2.4 Interactive use of PMASs*

The budgets have started to be used interactively. The budgetary reviews provide forums for discussions between subsidiaries’ managers and their centre managers about important issues that may have influences on the achievement of budgetary targets. Moreover, meetings are frequently organised between Centre Managers and Production Managers and Sale Managers to discuss issues occurring in the process of budget implementation. Furthermore, budgetary information is used by top managers to adjust the business strategies. The Managers of the Outsourcing Centre comments:

“Budgetary information becomes important in any meetings or discussions between us and the Board of Directors about what is going on in the company’s business and what actions should be taken to achieve the pre-set performance targets”

The interactive use was reported to be more intensive through the frequency of updated budgetary information for meetings and discussions between the centre manager and their superiors. A reason for this is that the business strategy related to outsourcing business is clearly identified. Moreover, this centre is in the process of establishing relationships with international customers. This is slightly different from other centres that have established their reputation in providing products and services for governmental institutions and other domestic customers. Additionally, the outsourcing activity might face a higher level of market competition than other centres. Other NFPMs such as customer satisfaction and on time delivery are also brought into conversation as the Deputy Director explained: “customer satisfaction may directly link to sales growth. Therefore, discussions on customer satisfaction enable the company to identify areas needed to be improved”.

#### *7.2.2.5 Performance evaluation and rewards*

Performance evaluation and rewards have been witnessed radical changes since 2011. Compared to the previous system of evaluation and reward, the new system is considered to be more objective and focuses on individual performance, especially in the Sales Department. The Managers of the Outsourcing Centre make some comparisons between the old and new systems:

“Performance evaluation and rewards were very subjective because of no written and quantified performance targets. Since 2011, individual performance indicators started to be employed, which rendered performance evaluation and rewards more objective and fair. This change was first conducted at the Sales Department and this department has experienced the most significant changes”.

Similarly, the Sale Manager of Solution Centre clarifies:

“Before 2011, Project Managers or Team Leaders played a very important role in evaluating individual performance. Some employees could achieve 300% of their pre-set targets while other employees achieved nothing. In this case, Project Managers or Team Leaders can make decisions to share achievement among employees – then, employees will pay each other back in the following years”

More transparent mechanisms of performance evaluation and rewards have been built. Sales volume became the key indicator to evaluate and reward individual performance at the Sales Department. A clear formulation for fixed pay and bonus provides better motivation for both managers and employees than before. The Manager of the Outsourcing Managers clarifies:

“If my centre can achieve better performance targets, the bonus will be higher. However, if we set a low target, the company will apply a lower bonus level, even no bonus at all”

Challenges were reported during this changing process. One issue was related to sharing customer information in the company information system. While the purpose of this change is to build better data of customers for improvement of decision-making related to new business directions or introduction of new products or services, this faces resistance among salespersons. Consequently, salespersons threatened resignation for two reasons. Firstly, they did not want to share customer information for the sake of their performance. Secondly, evaluating and rewarding individual performance created pressures for employees who had a poor performance. Thus, “many employees wanted to maintain the old way of performance evaluation because that way helps some



employees to hide their weaknesses thanks to subjective evaluation from their project managers or their team leaders”, explained the Manager of Solution Centre. A number of salespersons left the company because of their poor performance under the new system of performance evaluation and rewards. This system started to work more smoothly when new salespersons were recruited and were able to perform well.

The change benefits the company in different ways. Firstly, managers can make timely decisions based on updated customer data as the manager of the outsourcing centre evaluates:

“New business directions, new products or services are identified within a shorter time frame than before (e.g. one month instead of six months). Business proposals are approved by Board of Director sooner than before because supported by evidence from the information system.”

Another benefit of this new system is that individuals are motivated within the company because they are clear about what performance indicators are used to evaluate and reward their performance, especially in the Sales Department. Qualitative performance indicators are only used when salespersons have achieved their quantitative performance targets. Professional working style is gradually improved. However, this objectivity appears to be lower in the Production Department because of task interdependence among employees. The Production Managers of the Outsourcing Centre clarifies:

“In spite of the establishment of individual performance indicators for each position, the subjective style in performance evaluation and rewards are maintained at the Production Department, about 50%. I am responsible for evaluating team performance while team leaders or project managers are responsible for performance evaluation of their employees. The subjectivity increases when an employee participates in different projects, and their performance is evaluated by different team leaders or project managers”.

At the same time, the objective style led to problems of co-operation between employees and between teams as well as connections between organisational members if their performance indicators are not interdependent. The Sales Manager of the Solution Centre makes comparisons between an objective style of performance evaluation and rewards and a subjective one:

“With the subjective style in the past, employees were willing to co-operate with each other. Now, co-operation has become more difficult because employees only focus to achieve their

pre-set performance and on their performance indicators. More negotiating time is needed for co-operation”

Loose connections between organisational members are viewed a loss of the culture by the Sale Manager of the Solution Centre:

“Currently, the company cannot maintain the family atmosphere as before. Connections are only maintained between people of teams or departments”

Another issue is the conflict between Production Department and Sales Department related to performance indicators. Salespersons only focus on achievement of sales volume. Thus, they attempt to obtain contracts with customers without concerns about costs of thereof. Sometimes, prices of products or services are much lower than its costs. The Sales Manager of the Solution Centre clarifies:

“Key performance measures of Sales Departments and Production Departments in the same centre are relatively independent. The former focuses on number of customers signing contracts whereas the latter have to make sure the pre-set budgetary targets are met”.

This is partially because the company provides products and services for governmental institutions which are constrained by pre-set budgets for each year. When signing contracts with these institutions, salespersons hope that they can maintain customer relationships for better future contracts when the institutions have bigger budgets. The Sales Manager of the Solution Centre explains:

“Our competitors might be willing to sign the contracts with governmental institutions with their proposed prices. At this price, no profit can be made, but we can have future contracts with them or prices might be adjusted in the process of providing products or services if possible”

### **7.2.3 Case summary**

In summary, the software production company has witnessed numerous changes in its PMASs. In particular, the most striking aspect of PMAS practices is the company is divided into profit centres that provide lower managers with a greater level of autonomy in decision-making within their areas of responsibility. This is coupled with the practice of participation in setting targets for organisational performance, which enables the lower managers to propose and negotiate the budgets with their superiors. Even though the adoption of NFPMs is still limited with the presence of only customer satisfaction measure at the organisational level, budgets are interactively used at a greater extent

than before to discuss issues related to tracking progression of budgetary targets and the business strategy. Moreover, introduction of individual performance indicators marked a significant change towards the company's system of performance evaluation and reward.

### **7.3 A case study of a Fertiliser Company**

#### ***7.3.1 An overview of the Fertiliser Company***

Being established in 1962, the Fertiliser Company is one of the oldest and biggest fertiliser companies in Vietnam with more than 5,000 employees. Targeted customers are farmers who have low income and do not obtain advanced knowledge about fertiliser products. The company was equitized in 2007 and listed on the Vietnam Stock Exchange in 2011. The State is still the biggest shareholder, holding 68.9% of the company's shares. This dominance is reflected through the presence of 6 Communist Party members on the Board of Management. Therefore, the strategic orientation and business activities of the company are controlled by the State. The company follows the vision and mission below:

To become the leading company providing fertiliser and chemical products in order to maintain its stable growth of agriculture production in Vietnam;

To maintain company market share via development of new product lines that contribute to improvement of agricultural productivity;

To improve product quality via investment of production technology in order to make company products exportable;

To create more jobs and improve employees' income

To build a good image for the company and make a contribution to social responsibility

#### ***7.3.2 PMAS practices***

##### ***7.3.2.1 The adoption of NFPMs***

The organisational performance is only financially evaluated. Currently, sales and sales volume are updated daily to track progression towards pre-set targets of company performance. In this way, accounting information is used in a more serious manner to

than before equitization when financial performance was made up in order to meet the State's requirement rather than reflecting real firm performance.

Although NFPMs are not used to assess company performance, the company paid more attention to customer satisfaction through improving product quality and introducing new products. This is more crucial when farmers in Vietnam rely very much on producers for selecting the most suitable fertiliser products for their plants. Thus, the company does not only play the role of providers, but also educators. To introduce new products to customers, the company provides them with free samples and detailed instructions on using those products. Then customers can compare the productivity of plants used the new fertilisers with that of plants using their competitors' products. Moreover, numerous live shows with participation of leading agricultural scientists are organised to guide farmers about using the products. This makes the company's products more competitive when the fertiliser market consists of more than 300 producers. The company tends to price their products relatively higher than their competitors as the Sales Manager comments:

"Farmers with little knowledge on fertilisers tend to be attracted by cheap fertiliser provided by smaller producers or Chinese products. The company can compete on the market through its product quality. Thus, the farmers still use the company's product even though the prices might be higher compared to similar types of products. Our competitors never set their product's price higher than ours on the same type of products"

The company started to pay attention to training hours for employees through encouraging them to participate in short courses related to their tasks. The personnel manager provides further clarifications:

"In the past, the short training hours were not helpful for enhancing employees' performance although a certain number of compulsory training hours were delivered. One reason for this is that the company could not identify which types of training needed for different types of tasks. Moreover, the training content sometimes was controlled by the State"

The importance of R&D activities is recognised by the company. Co-operation between the company and Hanoi Agriculture University has developed in the area of product development to ensure adaptation of new products to changes in natural environmental conditions (e.g. soil, insects, or weather).

In short, although only accounting measures are used to assess the organisational performance, these measures reflect more real company performance than in the past.

While NFPMs were not adopted to assess organisational performance, the company appears to have realised the importance of operational activities in relation to financial performance.

#### *7.3.2.2 Decentralisation of decision-making*

Despite the maintaining of a highly hierarchical structure, changes in decentralisation of decision-making have been witnessed. Board Directors consist of the General Directors and three Deputy General Directors who are responsible for operations of five departments and seven factories. Departmental and factory managers are responsible for reporting directly to Deputy General Directors. Several departments are organised in smaller areas that are managed by deputy departmental managers. For example, the Sales Department consists of Marketing, Sale and Transportation.

According to the Chief Accountant, while the organisational structure has not experienced significant changes after equitization, numerous rules, regulations and procedures relating to selling products, buying materials, machines and equipment were established. These created more transparent mechanisms regarding rights and responsibilities of managers at all hierarchies. Moreover, the establishment of a business panel with the participation of departmental managers enables the company to improve the quality of decisions. The panel meets weekly for discussions. Here, lower managers can give their opinions, or suggestions, to improve the current situation. Additionally, the establishment of the marketing team is considered a way that helps the company to improve its performance. In the past, the company faced tough times when its products could not be sold. As such, “all employees had to become salespersons. They had to be responsible for selling a required sales volume to receive their salary. At this stage, inadequate care for customer needs and satisfaction could be a reason for a very poor company performance”, said the Personnel Manager. A new management philosophy was employed after equitization. Information about various aspects of customers and competitors is gathered and analysed to ensure that the company’s products can meet customer needs (e.g. changes in product composition and product variety).

Equitization is new to all employees because they became shareholders of the company. “Employees themselves feel more responsible for their jobs than before. They are not only workers, but also owners of the company”, explained the Personnel Manager.

Although the State is the company's biggest shareholder, the top management has more autonomy in making decisions regarding investment, products, and prices. After equitization, the company had to deal with numerous problems related to employee reorganisation, working motivation and improvement of the productivity. The General Director encouraged early retirement among employees through paying their salary for remaining working years and recruiting one of their children whose skills and knowledge meet the job's requirement. By do so, the company could obtain a younger workforce with better skills and knowledge. Another issue is to promote managers to the right position, which is considered a good way to motivate them. This lies in matters associated with educational backgrounds of the managers, especially when their qualifications do not reflect knowledge and skills. In this situation, the General Director needs to evaluate strengths and weaknesses of his subordinates before promoting them to a specific managerial position rather than qualifications-based promotion. Furthermore, the promotion is based on competence at work rather than age as before. This benefit the company in improving the quality of communication and co-operation between departmental managers as the Personnel Manager explained:

“Old managers are more likely to maintain the old managerial routines - a socialist way: the old way of thinking, behaving, the old way of treating employees and the old way of working with other people. These slow down everything at work. Young managers' thinking is more flexible, they are more productive and willing to co-operate with people to carry out shared tasks”.

Although decision-making rights are delegated to lower managers, the highly hierarchical organisational structure is a barrier for communication within the organisation. The Sales manager complained that proposals need to pass many managerial levels before obtaining the approval of the General Director, for instance:

“The proposal must go from our level to my direct manager, to the Deputy Director and to the General Director. It takes a long time when my direct superior does not have professional knowledge about issues related to the proposal. But we cannot pass the proposal to the General Director because it might influence my personal relationship between me and my direct superior. Despite changes occurred, it takes time to change the old routines”

In brief, although decentralisation of decision-making has witnessed several changes, the company maintains a relatively high hierarchical structure and numerous routines related to the old managerial style.

### *7.3.2.3 Participation in setting targets for organisational performance*

Boards of Directors, after equitization, started to have more autonomy in making decisions to ensure achievement of the pre-set targets. The departmental managers do not play any roles in setting financial targets of the company, but they involve the process of setting operational targets related to different business areas as the Personnel Manager expounds upon:

“Introduction of a business panel provided a forum for discussions and participation of lower managers within the company. The General Director was not a person who made decisions himself without considering provided information from lower level managers. The General Director understands that if his decisions go wrong, they will cause troubles for other related operations. At the panel meeting, everyone is required to give opinions or suggestions to ensure that the final decisions are informative. If disagreements occur, the final decision must be voted on and the decision will be made if they are voted by the majority”

Interestingly, informal communication and discussions can result in agreements among panel members. “If the meeting ends without finalised decisions because of disagreement, managers who keep different perspectives on solving the problems might informally discuss. They might have more time to think over the problems and solutions and reach informal agreement before finalised formal decisions are made in the following meeting”, clarified the Personnel Manager.

### *7.3.2.4 Performance evaluation and rewards*

The systems of performance evaluation and rewards have witnessed several changes. In the past, the fixed pay were based on their qualifications and working time for the company rather than the productivity. This was applied for not only managerial positions, but also direct workers. The company pay its people for their eight hour presence rather than their performance at work. The more time they work for the company, the higher salary they can receive. The managers enjoy stability of their promotion without very much further contribution. People assume employment permanence provided by SOEs under the government of the socialist State. In this sense, the system of performance evaluation and reward did not create motivation for people to enhance their performance at work. Currently, wages of the direct workers are based on the productivity. Classification of departments into two types, namely A and B enables the company to differentiate their contributions based on which salaries of managers and employees working for these departments are paid. Moreover, the practice of profit-

based bonus results enables the company to tie individual performance and organisational performance together. According to Sale Managers, not only sale managers, but all employees now care about sales and sales volume. Employment of irregular bonus – a reward for managers and employees who can propose a better solutions for existing problems of the company, which leads to cost saving or increase in sales or sale volume, encourages people to be more innovative in carrying out their tasks. These changes have created a huge motivation for all organisational members to improve their performance at work. People devote more time and effort for their tasks than before as the Personnel Manager notes:

“The old system caused laziness and irresponsibility because it could not make any distinctions between employees’ efforts. Managers did prefer to follow the rules, standards or established procedures and they did not try to improve ... They only have opinions when their benefits were influenced”.

This new system of performance evaluation and rewards has positive impacts on individual performance, but unfairness is still perceived among employees and managers of both A and B type departments due to differences in task uncertainty. According to the marketing manager, classifying departments into two categories does not significantly enhance feelings of fairness when some departmental managers think that they have to take more responsibilities, but are paid the same compared with other departmental managers. In this situation, the Personal Manager highlights the role of General Director in creating cohesion for the company:

“As if a father, the General Director know how to reduce conflicts among the family and keep cohesion to ensure that people are happy with what they are doing by reducing possible conflicts among family members”

### ***7.3.3 Case summary***

The fertiliser company has experienced gradual changes in PMASs, which is associated with pressures of market competition and change requirement after equitization. The financial performance measures started to reflect the real organisational performance and enable the top management to track achievement of the pre-set targets. Despite the non-adoption of NFPMs, the company appears to focus on improving various aspects related to those measures. While a highly decentralised organisational structure are maintained, lower level managers have higher autonomy and are involved more in the



process of decision-making than before. A considerable change in the system of performance evaluation and reward has created both extrinsic and intrinsic motivation for managers and workers to perform better.

#### **7.4 Influences of organisational culture on PMAS practices**

Qualitative analyses confirmed the culture of relatively high power distance and collectivism in Vietnamese organisations, which is in line with prior studies on Asian culture (e.g. Harrison, 1992; Harrison, 1993; O'Connor, 1995; Tsui, 2001). These cultural characteristics, together, are manifested in several ways. Firstly, “formal culture” appears to be maintained between lower and higher level managers, between older and younger people, between junior and senior members. People have a sense of inequality due to the official authority and age differences, which leads to constraints in communications between individuals. Secondly, personal relationships have considerable impacts on co-operation within organisations. Consequently, individuals’ behaviours or opinions tend to follow cultural expectations rather than reflecting their real thoughts. People are afraid that conflicts at work influence their daily relationships, especially when individuals know each other for long time. This is one of the reasons for people’s unwillingness in providing their constructive feedback, honest opinions, suggestions and critical thoughts. The Marketing Manager of Fertiliser Company gave some comments:

“Sometimes, my direct manager does not understand my ideas, but I never take these ideas to higher level managers because it would be difficult for us to work with each other later.”

Together, power distance and collectivism cause the gap between formal and informal changes in PMAS practices. Individuals feel more comfortable to express their thoughts, opinions or suggestion in informal settings rather than formal ones (e.g. meetings). Therefore, people tend to seek informal supports from their colleagues before presenting proposals in formal meetings, especially when their proposals might influence interests of different groups.

The R&D Manager of Pharmaceutical Company commented:

“We usually eat lunch or go for drink together after work. Thus, personal supports from my colleagues encourage me to introduce and implement new ideas within my departments”.

Collectivist culture is also expressed in attitudes towards fairness in performance evaluation and rewards. The Personnel Manager of Fertiliser Company clarifies:

“I don’t think absolute fairness exists. On the one hand, younger people might perform better than older people. On the other hand, the latter contributed to development of the company for many years while the former has just come. Therefore, organisational members need to support each other. How can the company achieve its pre-set targets with interest conflicts among individuals? A good way to solve this problem is to shorten the gap in knowledge and skills between generations through providing financial support for trainings and re-trainings”

Another aspect of cultural traits in Vietnamese organisations is related to uncertainty (or risk) avoidance. People would like to avoid ambiguous situations, reduce their stress and stabilize their employment by following established rules. Most people are reluctant to look for new job opportunities outside their organisations. Employment stability and following established rules make people feel safe (Hofstede, 1980). Therefore, individuals might not attempt to change or improve existing rules or regulations even if they think the rules are somehow not appropriate to the current situation of their organisations. Additionally, lower level managers still considerably depend on their superiors when they themselves have to make decisions under ambiguous rules or situations that cannot be avoided in the process of reforming various managerial practices in Vietnamese organisations. The manager of R&D Department of Pharmaceutical Company clarifies:

“Decentralisation of decision-making makes lower level managers feel more autonomous in performing their jobs. However, these managers face various challenges when they are not sure if decisions that they make belong to their responsibilities. Therefore, a more transparent mechanism with better clarification of rules are important.”

Risk avoidance appears to be associated with age. In Software Production Company, younger managers appear to welcome and quickly adapt to result-oriented culture. However, this new culture brings challenges for older managers and they also concerns about loss of old culture due to implementation of new cultural practices. An interesting scenario described by the Director of Outsourcing Centre when the company introduced a new system of evaluating and rewarding performance of salespersons based on quantitative rather than qualitative performance measures. By doing so, the Board of Director attempted to gradually replace rule-oriented culture by result-oriented culture across organisational levels (e.g. individuals, team, departments, and centres). Consequently, older salespersons threatened resignation and finally left their jobs after a

year because of their poor performance under the new systems. In contrast, recruited young sale persons can follow new rules and perform well.

Emergence of outcome-oriented culture is resulted from attempts of enhancing economic efficiency and effectiveness since equitization. “No-owner culture” has been gradually replaced by performance-based culture. The former is characterised by autocratic leaders, ambiguity of decision responsibility, lack of individual accountability, absence of feedback on performance appraisals while the latter emphasises measuring individual performance, clarification of individual responsibility, accountability, co-operation and fair rewards (Thi Quy and Duc Khuong, 2011). The analysis suggests that outcome-oriented culture appears to grow by time: the longer SOEs are equitized, the more outcome orientation they become. NFPMs are adopted at the organisational and operational levels of Pharmaceutical Company while these measures are only employed at operational level of Fertiliser Company. Moreover, commission for salespersons are employed in Pharmaceutical Company, but not Fertiliser Company. For Thi Quy and Duc Khuong (2011), it takes at least three years for equitized SOEs possessing several characteristics of result-oriented culture. In this sense, equitization is considered a learning process that enables Vietnamese organisations to adapt to changes in their external environments. The Deputy Director of Fertiliser Company comments:

“Equitization is a learning process for everyone from top managers to ordinary employees. Despite challenges, we have made managerial improvement in planning, budgeting, costing, pricing, marketing, investing in human capital”

This view is shared by The Deputy Director of Pharmaceutical Company:

“Since equitization, the company has paid more attention to cost reductions, technological modernisation, expansion of market share, and research and development on new products. We tried, learned and progressed gradually”

The qualitative analysis also suggests private companies (e.g. Software Production Company) might establish outcome-oriented culture with a greater extent than equitized SOEs (e.g. Pharmaceutical Company or Fertiliser Company). Firstly, Software Production Company is organised by profit centres whose directors are responsible for centres’ budgets. In contrast, profit centres are not established in the two other companies. The findings are in line with Thi Quy and Duc Khuong (2011) who found associations between changes in ownership structure and organisational culture by

analysing questionnaires collected from 790 companies located in Ho Chi Minh City. Private companies are more market orientated and people orientated than SOEs. The former can be recognised through looking for new markets, developing new products, concerning actions of competitors and competitiveness while the latter are practiced through task-based rewards, individuals-based promotion and support for learning.

Vietnamese organisations have witnessed the emergence of innovation-oriented culture. Leaders become more open to changes and are willing to employ new PMAS practices in order to improve economic efficiency and effectiveness of their organisations. These leaders realised benefits of new PMAS practices despite non-alignment between cultural elements embedded in new PMAS practices (e.g. decentralising of decision-making) and their organisational culture. The Director of Outsourcing Centre of Software Production Company comments:

“It is not easy to put new PMAS practices in practice, but the Board of Directors realised that changes are needed. Otherwise, firm performance cannot be improved in the long run. Therefore, leaders of the company become more open to new ideas and perspectives that might differ from theirs”

Despite being infant, the emergence of innovation-oriented culture enables organisations to go beyond their normal norms and assumptions to find new ways to solve problems. The Sales Manager of Software Production Company clarifies:

“Addressing issues related to customer satisfaction, an important concept in the market-oriented economy, is new to many organisational members, especially who was working in the centrally planned economy where customer had no power”

Innovation-oriented culture is also manifested through attempts of organisations in differentiating their products and services from those provided by competitors. For instance, Pharmaceutical Company attempts to build uniqueness of pharmaceutical products by combining clean traditional medicines and modern production technology. This enables the company to gain customers’ trust, especially when concerns about healthcare products are rising in Vietnam. The manager of R&D Department of Pharmaceutical Company explains:

“Daily news on poisoning foods and their negative effects on human health on the television, newspapers and social media lead to mistrust of Vietnamese people for domestic products. This is challenging for local products in many ways if we want to build trusted brands. The majority of Vietnamese people cannot afford to buy foreign products, thus market demands are huge. For this reason, I think we can offer customer something with our creativity”.

Similarly, the Marketing Manager of Fertiliser Company comments:

“You might think fertilisers are made by simple combination between different raw materials, nothing more. However, these products involve various things related to plants themselves and local conditions such as weather, soil or insects. Is it possible to customise fertilisers for some plants producing high values?”

Organisations emphasis employees’ creativity and provide them with opportunities of proposing new ideas and solutions for existing problems. The Deputy Director of Pharmaceutical emphasises:

“Rewarding new ideas or solutions is not new. However, this practice differs from the past when implications of ideas and solutions on firm performance were not emphasized and lack of clarification in criteria for evaluating ideas and solutions led to subjectivity. Currently, only new ideas and solutions have real implications on company performance are rewarded”

In brief, the qualitative analysis suggests stability and gradual change of organisational culture (Burns and Scapens, 2000). Vietnamese organisational culture is still characterised by relatively high power distance, collectivism and uncertainty avoidance because of non-diversified labour force. Consequently, employment of new PMAS practices might be hindered due to misfit between the existing organisational cultural traits and cultural elements embedded in new PMAS practices. However, result-oriented culture and innovation-oriented culture have emerged in Vietnamese organisations. Lee and Yang (2011) suggest that mechanic structure is effective in implementing new PMAS practices. Thus, organisational leaders’ support coupling with availability of pioneers in conducting new PMAS practices might be decisive factors for the speed of change in these practices.

## **7.5 How do PMAS practices improve organisational performance?**

### ***7.5.1 Influences of PMAS practices on the quality of decision-making***

Most interviewees agreed that changes in PMAS practices enables managers across organisational levels to enhance the quality of their decision-making. Firstly, decision-making becomes timelier than before because managers take both financial and non-financial information into consideration. Moreover, numerous decisions that used to be made by top management are delegated to lower level managers. The Director of the Outsourcing Centre at Software Production Company highlighted:

“Decision-making needs to be timelier than before to ensure a quicker response to changes external and internal change. Obtaining better quality of information enables me to make timely and informative decisions. This is especially important when my centre have to compete internationally”.

Secondly, evidence-based decision-making has employed. The adoption of NFPMs enables companies to quantify various aspects of operational performance, which helps managers to gather better information than before. Moreover, changes in using financial accounting information result in better pricing, selling and buying decisions. The Chief Accountant of Fertiliser Company comments:

“More frequent update of accounting information helps the company to import raw materials with much cheaper prices than competitors”

Similarly, the Deputy Director of Software Production Company added:

“Coupling with experience, more valid and concrete evidence become more important to deal with faster changing environment”

By involving lower level managers in the decision-making process, higher level managers can diversify information sources for their decisions. The manager of R&D Department of Pharmaceutical Company compared between current participation practices with the past practice as follows:

“Participation means lower level managers give their superiors honest and sound opinions rather than only saying that they agree with the given proposals. The lower level managers can disagree with different aspects of the proposal, but they need to provide the reasons for that and proposal better alternatives with justifications. In the past, we had this practice, but it was not real. The lower level managers did not say what they really thought; they gave their opinions or suggestions without attempts for improvement of business activities. They tended to avoid potential conflicts between different parts of the organisation.”

Similar view is given by the Deputy General Director of Pharmaceutical Company:

“Participation itself is always emphasised by organisational leaders in the past. But I think there is a big difference between the current practice and the past practice of participation. The practice of participation goes beyond words and emphasises actions. Lower level managers should include evidence for their suggestions or proposals.”

Thirdly, managers become more responsible for their decisions. This is partially because decentralisation of decision-making makes mechanisms of right-responsibility more transparent than before. The decision-making right attached to each managerial level is specified. Lower level managers have more autonomy in decision-making within their responsible areas. As a result, they become more responsible for

consequences related to their decisions. The Deputy Director of Software Production Company provides clarifications:

“Lower level managers have gradually learnt to not always rely on their superiors when making decisions as before because they themselves are responsible for consequences of their decisions, not their superiors. One reason for this is their decisions directly influence their performance evaluation, their bonuses, their future promotion and their reputation”.

Establishment of more transparent rules and regulations leads to better role clarification related to different managerial positions and reduction of role conflicts between different departments. The Sales Manager of Software Production Company comments:

“Now my responsibilities are specified, thus, I know exactly what I need to do. However, I think performance targets of Sales Departments are more clarified than that of other departments”

In short, the qualitative analysis suggests that PMAS practices enable organisations to perform better because the decision-making quality is improved in terms of timeliness, evidence-based decisions and individual responsibility in decision-making.

### ***7.5.2 Influences of PMAS practices on individual motivations***

The analysis of qualitative data suggests that PMAS practices have created both extrinsic and intrinsic motivations for individuals to perform their jobs better than before. The former is derived from factors outside people bringing about feelings of external pressures to behave in a specific way while the latter emphasises people’s enjoyment of doing tasks or jobs associated with feelings of being able to choose, thus, behaving in a self-determined way (Kunz, 2015). Concerning extrinsic motivation, the adoption of NFPMs across organisational levels considerably influences individuals because quantitative standards rather than qualitative judgements are used to evaluate their performances. The Production Managers of Software Production Company clarifies:

“When performance targets are clear, the first concerns should be how to achieve the targets. This involves lots of pressures because realistic plan for the achievement need to be built. Otherwise, when pre-set targets are not achieved, other pressures will come.”

Rewards-related changes provide extrinsic motivation for individuals. For instance, salespersons will be rewarded with a higher level of commission if they achieve higher sales or sales volume. Moreover, individuals will receive higher bonuses if their

companies achieve higher profit. The Sales Managers of Software Production Company comments:

“A new way of practising rewards such as commission or company profit-based bonus motivates people to be more productive than before. Of course, we could not deny the importance of monetary rewards in driving people efforts. Obviously, money enables people to raise their living standards.”

The Production Manager of Software Production Company added:

“Obviously, company profit-based bonus means that individual performance is financially tied to organisational performance. Thus, if I perform well, I will contribute to performance of the company that ultimately benefits myself in terms of bonus and my future career”

Better rewards make people proud of themselves feelings of being valued by their organisations. The Manager of R&D Department of Pharmaceutical Company provides clarifications:

“Despite lots of pressures to achieve pre-set targets, human resources are evaluated more highly than before. Better rewards result in more individual satisfaction at work than before. Thus, people work harder for the money they can get. Salary and bonus reflects their skills and expertise that they are proud of.”

Sharing the same viewpoint, the Director of Outsourcing Centre of Software Production Company comments on decentralisation of decision-making:

“Having autonomy in decision-making gives me feelings of controlling my jobs. I feel capable of making right decisions. Thus, I devote my times and effort to ensure the best of my decisions.”

The Factory Director of Pharmaceutical Company addresses challenges in decision-making:

“Being delegated more decision-making right leads to both opportunities and challenges. On the one hand, I am a boss, really. On the other hand, a lot of knowledge and skills that I need to improve to ensure that I can do a good job. Therefore, when I achieve something, I feel proud of myself. I feel more confident and capable to do better.”

Making individuals feel respected and valued through involving them in the decision-making process helps organisations to maintain the cohesion between different departments. The Personnel Manager of Fertiliser Company clarifies:

“Classifying departments as A and B leads to differences in salaries and bonus of managers and employees, which appears to cause potential conflicts. However, opinion, suggestions or proposals from both types of department are equally valued and taking into consideration in order to make necessary changes. By doing so, people feel happy and satisfied rather than focusing on potential conflicts”



In brief, the qualitative analysis reveals that changes in PMAS practices create more motivations for individuals than before, an important mechanism through which PMAS practices enhance organisational performance. The adoption of NFPMs coupling with new practices in performance evaluation and rewards result in external pressures driving individual effort for achieving better performance. PMAS practices also create intrinsic motivation for people derived from feelings of doable, being respects and valued for what they are doing.

## **7.6 Summary**

This chapter has presented PMAS practices in three companies: Fertiliser Company, an SOE; Pharmaceutical Company, an equitized SOE and Software Production Company, a private company. These companies have witnessed changes in their PMAS practices at various extents, which is associated with an increase in PEU and task uncertainty derived from the economic reform in 1986 and the process of equitizing SOEs.

Regarding PMAS practices, NFPMs were adopted with a greater extent at organisational level by Pharmaceutical Company than the two other companies.

Pharmaceutical Company assesses its performance by measures derived from four performance dimensions suggested by BSC. Only customer satisfaction is used for evaluating firm performance at Software Production Company. None of NFPMs was employed at Fertiliser Company. NFPMs enable managers to obtain more complete picture of their organisational performance and discuss changes occurred within their organisations. However, loose link between NFPMs and business strategies leads to constraints on using NFPMs interactively to re-formulate business strategies.

Vietnamese organisations have also experienced changes in decentralisation of decision-making and participation of lower managers in setting targets for organisational performance. Software Production Company is organised in a number of profit centres, which provides lower managers a greater autonomy within their responsible areas than the other two companies. Employment of key individual performance indicators and practices of profit sharing-based salaries and bonuses result in more objectivity in performance evaluation and rewards within Vietnamese organisations.

Characteristics of PMAS practices are not only shaped by uncertain variables (PEU and task uncertainty), but also Vietnamese organisational culture, namely power distance, collectivism and uncertainty avoidance. Occurrence of resistance to changes in PMAS practices is rooted in misfit between cultural elements embedded in new PMAS practices and cultural values in Vietnamese organisations. Consequently, this causes time lag of formal changes in PMAS practices. Simultaneously, new cultural practices, namely result-oriented culture and innovation-oriented culture have been emerged in the context of Vietnam due to dual changes in new PMAS practices and organisational culture. As a result, changes in PMAS practices result in enhancement of organisational performance through improving the decision-making quality in terms of timeliness, evidence-based decisions and individual responsibility in decision-making. Moreover, these practices create motivation for organisational members. On the one hand, individuals feel more motivated with higher and fairer payments as well as opportunities related to their promotions. On the other hand, motivations are derived from having more autonomy within their responsible areas, being respected and valued when involving in the process of decision-making.

## **Chapter 8: Integration and Discussion of Empirical Findings**

The two previous chapters, quantitative and qualitative findings, have presented various aspects of PMAS practices in three listed Vietnamese companies in relation to contingent variables and impacts of those practices on organisational performance as well as effects of the contingent variables on the relationships between PMAS practices and organisational performance. This chapter begins with an integration of the quantitative and qualitative results in order to provide more complete picture of PMAS practices in listed Vietnamese companies is presented in section 8.1. Then, discussions related to antecedents of PMAS practices are presented (section 8.2). This chapter further discuss mechanisms between PMAS practices and organisational performance (section 8.3), which is followed by discussions toward forms of fit in the contingency theory (section 8.4). The chapter closes by its summary (section 8.5).

### **8.1 PMAS practices in listed Vietnamese organisations**

#### ***8.1.1 The adoption of NFPMs***

Case studies inform the adoption of NFPMs in Vietnamese companies. The usefulness of those measures lies in its capability of covering various performance areas and provision non-financial information associated with financial performance. The extent of the adoption varies from one company to another. Pharmaceutical Company and Software Company adopted NFPMs at the organisational level while Fertiliser Company did not. Fertiliser Company, the largest company with more than 5,000 full-time employees, has only witnessed changes in using financial accounting data, but does not possess specialized and sophisticated PMAS practices compared with the two other companies. This suggests that organisational size measured by the number of full-time employees might not be the key variable impacting the adoption of new management accounting practices as suggested by prior studies (e.g. Bruns and Waterhouse, 1975; Merchant, 1981; Hoque and James, 2000; Speckbacher *et al.*, 2003).

An alternative explanation for this might lie in the nature of the process of management accounting revolution conceptualized by IFAC (1998) concerning characteristics of four evolutionary stages in achieving economic efficiency. The stage one (prior to 1950) focuses on use of budgeting and cost accounting. In the stage two (by 1965), this focus

shifts to provision of information for management planning and control through decision analysis and responsibility accounting. The stage 3 (by 1985) focuses on reduction of waste in resources used in business processes while the stage 4 (by 1995) emphasises creation of value through the effective use of resources, innovation and enhance customer satisfaction. The case study suggests that numerous Vietnamese companies might experience the first evolutionary stage while also adopt practices of other stages. This combination might result from diffusions of new practices into Vietnamese setting by foreign enterprises and foreign investors.

Diffusion of innovation concerns the disseminating process of ideas, perceived as new, into a given setting (Ansari *et al.*, 2010). In this regard, NFPMs might be still new to numerous Vietnamese companies, especially when the adoption of NFPMs is not compulsory and benefits of this practice might not be well-established in the context of Vietnam. This might provide an alternative explanation for the non-adoption of NFPMs at Fertiliser Company. According to Abrahamson (1991), organisations tend to adopt new practices because benefits of these practices enable organisations to improve their economic efficiency. Thus, the company has no need for adopting NFPMs because it performed relatively better than its competitors over the last three years. One reason for this is that the Fertiliser Company is still supported by the State in different ways, which exerts significant impacts on company performance. Another reason might lie in positive effect of transformational process from centrally planned economy to market-oriented economy on firm performance in Vietnam (Hau *et al.*, 2013).

Regarding the adoption of different performance dimensions, Vietnamese organisations appear to begin with the adoption of NFPMs from customer perspective rather than those from other performance dimensions. This finding is in line with Speckbacher *et al.* (2003) who reported that 57% surveyed companies in German-speaking countries did not include perspective of growth and learning to measure performance at the SBU level. This is partially because this perspective appears to have weak and indirect link to financial performance compared with customer perspective (Yee *et al.*, 2008; Chi and Gursoy, 2009; Kaplan, 2010). Although learning and growth perspective is considered a starting point of financial performance, the organisation only can link different performance dimensions to each other through cause-and-effect relationships when a mature stage of BSC implementation is reached (Kaplan, 2010). In Vietnam, NFPMs are gradually

incorporated in PMESs rather than systematic implementation. Thus, the organisation might select NFPMs from the perspective that obtains a strong link to financial performance in the early phase of the adoption (Malmi, 2001; Karabag and Berggren, 2014).

NFPMs are used at the individual level in the case of Software Production Company, which consequently had negative effects on co-operation among team members. This raises concerns about measuring team performance in order to encourage co-operation rather than competition between team members. The attention should be paid to both process and outcome indicators for teams facing high task uncertainty rather than focusing on only one of them (van der Geer *et al.*, 2009).

### ***8.1.2 Decentralisation of decision-making***

Quantitative and qualitative analyses indicate changes in decentralisation of decision-making in Vietnamese organisations. A higher degree of the decentralisation appears to be experienced by departments facing relatively high PEU (e.g. Sales Departments or Marketing Departments) compared with those operating in relatively low PEU (e.g. Production Departments). On the one hand, this study suggests lower level managers in Vietnamese organisations have experienced a higher level autonomy in decision-making than before. For instance, 75% respondents in a survey conducted by Truong and Nguyen (2002) reported a style of close supervision in Vietnam organisations. On the other hand, lower level managers still have a relatively limited autonomy in making decisions on the number of required employees and recruitment of new employees for their departments. The case studies reveal that the extent to which decisions are decentralised to lower level managers depends very much their organisational structure. For instance, lower level managers of Fertiliser Company do not have right to make decisions on employee recruitment for their departments whereas Sales Director of Pharmaceutical Company or Centre Directors of Software Production Company are fully responsible for the number of personal required and hiring new employees.

Other dimensions of organisational structure are revealed by the case studies. Firstly, team structure was adopted in Vietnam (e.g. Software Production Company) as a result from an increase in task independence within teams, especially when products are not standardized. Secondly, enhancement of transparency rooted in clarification of formal

rules and regulations in related to individual responsibilities facilitate communication across organisational levels. This initially results in two-way interactions: people become more active in share ideas, opinions and suggestions in formal meetings more than before. Fourthly, informal communication is considered an important channel through which lower level managers provide private consultation for their superiors. The findings suggest that the structure of Vietnamese organisations appears to become more organic than that described by Truong and Nguyen (2002) for Vietnamese organisations: hierarchical structure, centralised in decision-making, patriarchal in operation, specialised but duplicated in tasks between different departments and cumbersome in procedures. The findings support Nahm *et al.* (2003) who suggested interdependence between different dimensions of organisational structure.

### ***8.1.3 Participation of lower level managers in setting targets for organisational performance***

Quantitative results indicate a relatively high involvement, but insignificant influence of departmental managers in setting targets for organisational performance. The qualitative analysis suggests a considerable improvement of this practice in Vietnam recently, especially in the private sector. The lower managers initially have more influence in the process of setting targets for organisational performance. For instance, the manager of Outsourcing Centre in Software Production Company could negotiate the pre-set targets for his centre with the Board of Directors. The findings are consistent with prior studies suggesting positive associations between external and internal uncertainty and the practice of participation because of information asymmetry between different managerial levels. Lower level can provide information, suggestions and opinions for their superiors when involving in the process of setting (Shields and Shields, 1998).

This finding is supported by Chong *et al.* (2005) who suggest two dimensions of participation namely involvement and influence. The former refers to exchange and dissemination of jobs-related information between managers while the latter concerns with amount of influence that lower level managers have on final performance targets of the organisation. The authors found that the practice of involvement is employed with a greater extent than the practice of influence because the former helps managers to facilitate the decision-making and select appropriate courses of actions. Moreover, when lower level managers' voices are valued and respected, they feel more satisfied

compared with situations where people do not have their voices at work (Lindquist, 1995). Furthermore, individual commitments are enhanced thanks to vertical and horizontal information sharing, which ultimately results in better individual performance (Parker and Kyj, 2006). In this sense, the practice of involvement rather than that of influence might result in better organisational performance when market competition becomes more intensified.

#### ***8.1.4 Interactive use of NFPMs***

Interactive use appears to be in its infancy in Vietnam due to unclear identification of the business strategy and loose connections between the business strategy and NFPMs. Even though vision and missions are documented, they are not comprehensively conveyed to organisational members. Additionally, KSFs are not formally identified. Therefore, NFPMs are fundamentally used to signal changes occurred within organisations and track the progression of pre-set performance targets rather than using to control the business strategy (Simons, 1995). The extant literature suggests that designing PMASs should begin with vision and missions, KSFs, and business strategies (Ferreira and Otley, 2009). However, the findings imply that PMASs might not be systematically designed as the literature suggested. This may be due to the fact that organisations tend to prioritize changes in certain PMAS elements that are considered the best in a particular context and people's knowledge in order to solve the most urgent control problems (Chenhall and Euske, 2007; Li and Tang, 2009b).

#### ***8.1.5 Objectivity in performance evaluation and rewards***

The integrated results indicate a relatively higher objectivity in the systems of performance evaluation and rewards in Vietnam. Employment of profit sharing and bonus payment scheme might be considered a major breakthrough in the wage systems of equitized SOEs. By linking the company's profit to financial rewards of individuals, this practice motivates people to work harder for larger bonuses. As a result, the company's productivity is improved. The qualitative analysis further reveals a certain level of subjectivity in performance evaluation and rewards at the individual level, especially when an individual performance is evaluated by various team leaders or project managers (e.g. Software Production Company).

The subjectivity might not lie in equations used for calculating fixed pays and bonuses themselves, but in how different variables (e.g. education background, or work experience) are taken to formulate those equations. Thus, sharing profit and bonus payment scheme might create extrinsic motivation for people in short-term, the potential unfairness might lead to erosion of intrinsic motivation in the long-term. A similar problem occurred in Chinese SOEs employing profit sharing and bonus payment scheme was reported by Yao (1997). In Vietnam, the qualification, an important variable of the equation of fixed pay and bonus, is concerned by various managers because the qualification might not reflect expertise of managers. The Personnel Manager of Fertiliser Company clarifies:

“Having a university degree does not mean that people can perform better than those do not have it. One reason for this could be due to the quality of the educational systems. I think people try to get a qualification for their higher payment rather than for jobs-related knowledge. I think learning ability is more important than a piece of paper”

## **8.2 Antecedents of PMAS practices**

PMAS practices are influenced by various contingent factors: external environment, production technology, organisational structure, size, strategy and culture (Chenhall, 2003). This study, in particular, focused on only three factors, namely external environment, production technology and organisational culture in listed Vietnamese companies. This is partially because the importance of environmental variables, strategy and culture have been highlighted by Otley (2016). Moreover, the research setting provides a rationale for the selection of these factors because they might impact PMAS practices to different extents (Broadbent and Laughlin, 2009). In this regard, Vietnam, a socialist developing country, has been experiencing two remarkable events at both the macro-economic and micro-economic levels: the economic reform in 1986 and the equitization programme of SOEs since 1992. The former aims to liberalise the centrally planned economy in hopes of gradually escaping the economic crisis. This is coupled with the restructuring of SOEs through equitization which began with changes in the ownership structure with the aim of the enhancement of economic efficiency and effectiveness. Therefore, external environment and production technology were identified as the most influential factors on PMAS practices in the context of Vietnam for the quantitative phase of this study.



Organisational structure and strategy are considered control elements rather than contingent factors in this study (Broadbent and Laughlin, 2009; Ferreira and Otley, 2009). Organisational structure was investigated quantitatively and qualitatively. The former only focused on decentralisation of decision-making while the latter reveals other dimensions of organisational structure, namely the level of formalisation, and the nature of formalisation or level of horizontal integration. However, strategy was not taken into account as an influential factor on PMAS practices because of a relatively high level of State intervention leading to strategic control in listed companies. The demographic information confirms this consensus when the State is one of the shareholders of 67 companies (out of 90 sample companies) and retained greater than 50% of the shares in 23 companies. The case studies reveal that the State is the biggest shareholder of the Fertiliser Company, holding 68.9% of the shares. In the Pharmaceutical Company the total ratios of the shares held by the State, top management and domestic investors (35%, 5% and 16% respectively) were much higher than that held by foreigners (64% compared with 36%).

### ***8.2.1 Environmental uncertainty***

PEU reflects uncertainty of the external environment - the most influential contingent factor (Thompson, 1967; Shields and Shields, 1998; Chenhall, 2003). The Vietnamese organisations not only face considerable changes in customers' demands, but also competitors' threats in various business aspects. Noticeably, problems related to fake products were reported as a big challenge for organisations in building their reputation. External environment is also characterised by relatively frequent changes in governmental policies and regulations in the transformational process that might impacts organisational performance. For instance, changes in the policy of the standard volume of per truck led to reduction of profit of Fertiliser Company in 2014 due to an increase transportation costs. This section aims to discuss findings concerning impacts of PEU on PMAS practices.

The study suggests that an increase in environmental uncertainty leads to employment of PMAS practices of Vietnamese organisations for the purpose of enhancing economic efficiency and effectiveness. Regarding the adoption of NFPMs (hypothesis 1), the finding is consistent with prior studies suggesting that the adoption of NFPMs enables organisations to improve their competitiveness when facing a high level of PEU (e.g.

Chong and Chong, 1997; Hoque *et al.*, 2001; Lee and Yang, 2011). In particular, Innes and Mitchell (1990) found that NFPMs were widely adopted by electronic firms located in the United Kingdom in order to respond to increasing international competition and dynamism regarding product development and pricing strategy. However, Hoque and James (2000) suggest that diversity of performance measures might not be positively associated with market position - "a company's revenue share in relation to its competitors in a particular market" (p.4). A plausible explanation for this contradiction might be derived from differences between PEU and market position defined by those studies. The organisation only adopts a certain number of NFPMs to ensure effectiveness of PMASs rather than reducing effectiveness of PMASs by adding NFPMs. Thus, organisations with strong market position might establish comprehensive PMESs with a number of refined performance measures. However, weak market position companies might be in the process of refinement performance measures.

Secondly, the study suggests that decentralisation of decision-making and involving lower level managers and employees in the process of setting targets for organisational performance help Vietnamese organisation to alleviate the effects of increased PEU (hypothesis 2 and 3). This is in line with prior studies (e.g. Ferris, 1982; Gordon and Narayanan, 1984; Chenhall and Morris, 1986; Gul and Chia, 1994; Lee and Yang, 2011). Thirdly, the study finds that interactive use of NFPMs is useful when PEU increases (hypothesis 4), which is which is consistent with Simons (1995). Even though an increase in PEU leads to using NFPMs more interactively, this practice does not result in better organisational performance. This is partially because product competition might not reach a certain level at which interactive use has positive effects on organisational performance through enhancement of product innovation (Bisbe and Otley, 2004).

Fourthly, the findings do not support the hypothesis 5. In fact, an increase in PEU does not lead to employment of more subjective style in performance evaluation and rewards. Rather, a more objective style is employed in Vietnamese organisations. The finding is inconsistent with prior studies that found a subjective style in performance evaluation and rewards enables organisations to improve performance of managers under a situation of high PEU (e.g. Hopwood, 1972; Hirst, 1983; Govindarajan, 1984; Hartmann and Slapničar, 2012). A plausible explanation might be because PEU might need to

reach to a certain level at which the subjectivity can be functioned as a motivational factor, which leads to enhancement of individual performance.

Alternatively, differences between research contexts might be responsible for findings. In Western context, an absolute objective style using accounting data in evaluating and rewarding performance might cause high pressures for managers performing in a relatively high uncertain environment, which may prevent the managers from achieving pre-set targets. Therefore, a certain subjectivity might lead to reduction of pressures, which benefit managers' performance in the long-term (Hopwood, 1972). In contrast, the objectivity creates motivation for Vietnamese managers. This is partially because the presence of subjectivity in evaluation and rewards made people to feel unfair for a long time. The subjectivity enables organisations to distinguish performance between managers and their contribution to the company. This enhances perceptions of fairness of organisational members, one important factor for enhancing organisational performance (Hartmann and Slapničar, 2012; Cugueró-Escofet and Rosanas, 2013; Zanini and Migueles, 2013).

### ***8.2.2 Technological uncertainty***

Technological uncertainty is reflected through a variable of task uncertainty (Thompson, 1967; Shields and Shields, 1998; Chenhall, 2003). The findings suggest that an increase in task uncertainty results in involvement of lower level managers in the process of setting targets for organisational performance, decentralisation of decision-making, and interactive use of NFPs (hypothesis 7, 8, 9 respectively). The findings are consistent with prior studies (e.g. Ferris, 1982; Gordon and Narayanan, 1984; Chenhall and Morris, 1986; Gul and Chia, 1994; Lee and Yang, 2011). However, an association between task uncertainty and the adoption of NFPs was not evidenced (hypothesis 6). A plausible explanation given by Ben-Ner *et al.* (2012). That is, internal uncertainty rather than external uncertainty appears to have greater impacts at the individual level rather than the organisational level. The reason for a positive relationship between task uncertainty and objectivity in performance evaluation and rewards (hypothesis 10) were explained in a similar way with a positive relationship between PEU and the objectivity. It is noted that the objective style has been challenged by increased task interdependence within organisations.

### 8.2.3 Organisational culture

Organisational culture is considered an influential factor that shaping PMAS practices (Chenhall, 2003; Li and Tang, 2009b). The findings inform that culture in Vietnamese organisations is tied to their national culture characterised by high power distance, collectivism and uncertainty avoidance. This is consistent with O'Connor (1995) who suggests perceived cultural practices of organisations rooted in national cultural values. Shane (1995) finds that uncertainty-avoiding societies tend to be less innovative than uncertainty-accepting societies. Hofstede *et al.* (1990) find associations between power distance and process-oriented culture rather than outcome-oriented culture. Moreover, Vietnamese organisations are not subsidiaries of a multinational corporation and their workforce are locally recruited. Thus, their culture is not influenced by culture of a corporation located in a country with a different national culture. Therefore, Vietnamese organisations have experienced cultural resistance to changes in PMAS practices because cultural values embedded in these practices are not in line with Vietnamese culture.

The study suggests a gradual employment of outcome-oriented culture and innovation-oriented culture in Vietnamese organisations, especially Marketing Departments or Sale Departments that tend to face higher PEU than other departments. Recruiting young new employees facilitate PMAS practices rooted in different cultures due to their educational backgrounds. Moreover, the younger generation does not have working habits like those who were working under the centrally planned economy. This implies that changes in organisational culture are somehow coupling with changes in national culture. Development of various sub-cultures in the transformational process of organisations leads to differences in PMAS practices between them regarding them (Hopper *et al.*, 2009).

The extant literature suggests cultural fit between PMAS practices and organisational cultures (Bhimani, 2003; Ansari *et al.*, 2010). However, the culture can gradually changes under globalisation (Sifianou, 2013; Ladhari *et al.*, 2015). Therefore, Vietnamese organisations might always experience a certain degree of misfit between PMAS practices and organisational culture regardless of maintaining old PMAS practices or employing new PMAS practices. The duality between PMAS practices and organisational culture is in line with Burns and Scapens (2000) who suggest

associations between formal and informal management accounting. The former is consciously designed by a powerful individual or group through an introduction of new rules or actions while the latter involves changes in the way of collective thinking as a driver for the adoption of new PMAS practices. In this sense, Software Production Company provided an example of changes in PMAS practices driving changes in organisational culture (Burns and Scapens, 2000).

Prior studies suggest influences of implementing new PMAS practices on organisational culture. For instance, Umit *et al.* (2006) find interdependence between organisational culture and PMAS practices in case studies. That is, successful implementations of PMAS practices result in participative and consultative management styles. Moreover, appropriate uses of PMESs leads to the emergence of new organisational cultures. In the same vein, Jazayeri and Scapens (2008) explores the evolution of PMASs in a UK organisation when new PMAS practices are introduced as part of cultural change project since the mid-1990s. This company focused on changes in key values in relation to performance, people, customers, partnerships, as well as innovation and technology in order to reinforce the emergence of new organisational culture. Similarly, Ukko *et al.* (2007) find that changes in performance measurement provide new ingredients for conversations within organisations regarding work processes and how work issues were dealt with. Moreover, new managerial routines were emerged such as meetings for reviewing performance-related processes.

The study suggests important contributions of organisational leaders and new young employees to formal changes in PMAS practices (e.g. Software Production Company). This is partially because they hold new ways of thinking concerning PMAS practices, which plays a vital role in lowering barriers for changes that their organisations face. The findings are in line with prior studies that attempt to identify factors that influence implementation of new PMAS practices (e.g. Markus and Pfeffer, 1983; Malmi, 1997; Kasurinen, 2002). An attempt was made by Innes and Mitchell (1990) through categorizing factors associated with management accounting changes, namely motivators, catalysts, and facilitators. Motivators that are indirectly related to occurrence of changes in PMAS practices tend to be rooted in external forces (e.g. market or production technology). These factors provide equal opportunities of making changes in PMAS practices for organisations. However, time to initiate such changes

depends on catalysts that directly have negative effects on organisational performance (e.g. loss of market share). Facilitators (e.g. accounting staff) decide smoothness of and time length for implementation of new PMAS practices. Despite the presence of these potential factors for changes in Vietnamese organisations, the study highlights the importance of individuals' influences on changes in PMAS practices suggested by other scholars (e.g. Cobb *et al.*, 1995; Kasurinen, 2002).

### **8.3 Mechanisms between PMAS practices and organisational performance**

This section is presenting integrated discussions of quantitative findings (hypothesis 11, 12, 13, 14, 15) and qualitative findings concerning mechanisms through which PMAS practices might enhance organisational performance. Regarding quantitative findings, hypothesis 11, 12, 13 were confirmed. That is, the adoption of NFPMs, decentralisation of decision-making, participation of lower level managers in setting targets for organisational performance result in enhancement of organisational performance.

The qualitative finding suggests that changes in PMAS practices enhance organisational performance because of improvement of the decision-making quality and creation of individual motivation. Manifestation of the former lies in three aspects of the decision-making, namely timeliness, evidence-based decisions and individual responsibility in decision-making. These crucial features of decision-making are required if Vietnamese organisations would like to perform more efficiently and effectively under dramatic changes in external environment. The findings are consistent with prior studies that suggest needs for enhancing the decision-making quality of managers (e.g. Chenhall and Morris, 1986; Shields and Young, 1993; Abernethy and Brownell, 1999; Nahm *et al.*, 2003; Hoque, 2005).

For Chenhall and Morris (1986), timeliness in decision-making is an result of appropriate PMAS practices that enables organisations to obtain broad scope, non-financial, external and future-oriented information as well as frequent and timely reporting. These can be achieved by adopting NFPMs due to ability of these measures in gathering detailed information across organisational levels (Hoque, 2005); encouraging lower level managers and employees to participate in the process of decision-making (Parker and Kyj, 2006). Moreover, organisations can decentralize decision-making in order to ensure quick responses to uncertainty (Nahm *et al.*, 2003).

Furthermore, mutual communications between top management and their subordinates facilitated by NFPMs play a vital role in reformulating business strategy (Simons, 1995; Kaplan and Norton, 1996c; Abernethy and Brownell, 1999).

The study suggest a gradual replacement of routines-based decisions by evidence-based decisions in Vietnamese organisations is in line with prior studies reported changes in PMAS practices in Vietnam (Doan Ngoc Phi Anh *et al.*, 2011; Phuong and Jacques, 2011). However, Hongjiang *et al.* (2003) suggest the importance of the information quality (e.g. accuracy, timeliness, completeness and consistency) in enhancing the quality of decision-making due to influences of such information on managers' cognitive processes and their final decisions (Franco-Santos *et al.*, 2012).

Despite popularity of the practice related to managers' responsibility in decision-making in Western context, this aspect is new not only in Vietnam, but also various Asian contexts such as China and Taiwan (O'Connor *et al.*, 2004; Lee and Yang, 2011). This results from decentralisation of decision-making as well as attempts in clarifying roles for different managerial positions in order to reduce role conflict and role ambiguity (Chenhall and Brownell, 1988; Burney and Widener, 2007; Hall, 2008). In Vietnam, this practice appears to not exist in SOEs operating in the centrally planned economy. Rather, employment of "collective responsibility" caused challenges for identifying managers' responsibilities when wrong decisions were made.

In Vietnam, creating extrinsic motivation first involves employment of sharing profit and bonus payment scheme and the adoption of individual performance indicators. According to Franco-Santos *et al.* (2012), motivation is a fundamental mechanism through which changes in PMAS practices results in better performance across organisational levels. In the same vein, Bonner and Sprinkle (2002) state that monetary incentives improve task performance through their indirect effects on individual effort. In other words, individuals might make greater effort toward their current or future performance because of monetary incentives. In this aspect, agency theorists argue that individuals make effort when what they are doing contributes to their economic well-being. Similarly, expectancy theory (e.g. Vroom, 1964) posits individuals tend to balance the effort with the expected outcome. Thus, an increase in financial rewards leads to better performance because money is considered an important instrument for

people to obtain various desirable things. As a result, people satisfy not only their material life, but also their inner feelings associated with symbols of prestige or status (Bonner and Sprinkle, 2002).

Concerning intrinsic motivation, the findings indicate that PMAS practices have created feelings of being valued, respected and capable of doing things for individuals. Goal-setting theorists point out associations between particular attributes of personal goals and individual performance (Franco-Santos *et al.*, 2012). In this sense, the adoption of NFPMs at the individual level provides a clear direction for people regarding how their performances are evaluated and rewarded. In other words, this practice helps organisations to clarify individual goals and reduce peoples' confusion of what they have to achieve (Burney and Widener, 2007; Hall, 2008). Additionally, Lau and Roopnarain (2014) find that the adoption of NFPMs provide individuals intrinsic motivation to participate the process of target setting. Coupling with decentralisation of decision-making, the adoption of NFPMs makes individuals more committed to achieve pre-set targets (Webb, 2004).

A certain level of autonomy is created by decentralisation of decision-making and participation of lower level managers in the process of setting targets for organisational performance (Richardson *et al.*, 2002). As a result, Vietnamese managers started to play a more active role than they did before. Despite non-alignment with Vietnamese culture that advocates hierarchy, these practices might create anonymous motivation for individuals (Kunz, 2015). In line with theory of self-determination, the study suggests the importance of psychological needs (e.g. competence or autonomy) in self-motivation and peoples' well-being (e.g. Ryan and Deci, 2000; Wong-On-Wing *et al.*, 2010). Received benefits from the two PMAS practices in case studies are in line with Wong-On-Wing *et al.* (2010) also find that participation in budgeting give people feelings of personal satisfaction, accomplishment, and belonging to their organisations as well as capability of setting higher goals.

In contrast, the quantitative findings rejected the hypothesis 14 postulated a positive relationship between interactive use of NFPMs and organisational performance. A reason for this lies in infancy in development of comprehensive linkage between selected NPFMs and organisations and unclear specification of KSFs indicated by



qualitative findings. Furthermore, the hypothesis 15 that postulated a negative association between organisational performance and objectivity in performance evaluation and rewards was rejected. The qualitative findings suggest a gradual replacement of a subjective style by an objective style of performance evaluation and rewards in Vietnamese organisations. The former is based on attitudes, beliefs and perceptions while the latter emphasises using quantitative measures (Kunz, 2015). This practice leads to changes in people's perceptions of fairness within organisations. In Vietnam, the adoption of NFPMs at the individual level contributes to enhancement of fairness, which results in better performance of individuals and organisations. The finding is consistent with Burney *et al.* (2009) who suggest that NFPMs can enhance both distributive and procedure justice, especially when these measures are used in conjunction with monetary rewards. However, Kolehmainen (2010) conducted case study in a leading telecommunication organisation suggests that the subjectivity in the performance evaluation and reward process strengthen procedure justice. In this case, NFPMs that are used for performance evaluation and rewards emphasize individual personal development rather than enforcement of strict accountability. The subjectivity provides a room for people to modify the targets in relation to changes in their organisation within a specific time period.

A plausible explanation for this contradiction could be derived from differences in using performance measures for performance evaluation versus rewards (Van Veen-Dirks, 2010). An extent of subjectivity or objectivity in performance evaluation and rewards might substantially depends on managerial intentions (Henri, 2006b). This is partially because the subjectivity and the objectivity itself possess both advantages and disadvantages. The study suggests needs for the presence of subjectivity in performance evaluation and rewards before the subjectivity is introduced. For Kunz (2015), a combination between the two styles in performance evaluation might boost anonymous motivation of individuals if only introduction of the subjectivity helps managers to overcome shortcomings of objective performance measures. The subjectivity enables managers to obtain a more complete picture of an employee's job. In this sense, the subjectivity contributes to enhancement of fairness within organisations.

## 8.4 Towards the forms of fit in contingency theory

### 8.4.1 Selection form of fit

The selection form is reflected through associations between various PMAS practices and PEU and task uncertainty (from hypothesis 1 to 10). Specifically, the study identified the effects of PEU and task uncertainty on five PMAS practices, namely the adoption of NFPMs, decentralisation of decision-making, participation of lower level managers in setting targets for organisational performance, interactive use of NFPMs and objectivity in performance evaluation and rewards. The findings suggest that this form of fit is applied for both technical and behavioural aspects of PMASs (e.g. NFPMs themselves and interactive use of these measures).

Vietnam is experiencing transformation from centrally planned economy to market-oriented economy. However, different types of organisations (equitized SOEs versus non-equitized SOEs) and different industries might be impacted differently by those changes at the macro level. Thus, by focusing on listed companies, the study adds supporting evidence for the presence of selection form of fit suggested by contingency theory. That is, changes in PMAS practices in listed Vietnamese companies are resulted from changes in external environment, which might enable these companies to achieve better performance. The findings are consistent with prior studies (e.g. Drazin and Van De Ven, 1985; Gerdin and Greve, 2004; Burkert *et al.*, 2014). Selection form of fit only focuses on responses of PMAS practices to their contexts, but not differences in levels of performance between organisations because this form of fit assumes that only organisations perform well can survive (Hartmann, 2005). Thus, selection form of fit does not provide any room for misfit between PMAS practices and their contexts (Gerdin, 2005b).

The extant literature tend to employ quantitative research methods to examine selection form of fit (e.g. Drazin and Van De Ven, 1985; Gerdin and Greve, 2004; Burkert *et al.*, 2014). By using the mixed research methods, the study suggests usefulness of case study in ensuring underlying assumption of selection form of fit and understanding relationships between PMAS practices, contextual variables and organisational performance a particular case study. Case studies in this study, for instance, can inform

that enhancement of organisational performance is considerably resulted from changes in PMAS practices that have been driving by changes in contingent factors.

#### **8.4.2 Interaction form of fit**

The study employed moderating model to test interaction form of fit expressed in six hypotheses (hypothesis 16<sub>a,b,c,d,e</sub> and 17<sub>a,b,c,d,e</sub>). Specifically, the study attempts to examine whether interactions between PMAS practices and contingent variables might results in enhancement of organisational performance. Regarding moderating effect of PEU, the findings indicate that interactions between PEU and participation of lower level managers in setting targets for organisational performance can enhance organisational performance (hypothesis 16<sub>c</sub>). This supports the presence of interaction form of fit in Vietnamese setting, which is in line with prior studies (e.g. Drazin and Van De Ven, 1985; Chenhall, 2003; Gerdin and Greve, 2004; Burkert *et al.*, 2014). In other words, organisations facing high (or low) PEU that involves lower level managers in setting targets for organisational performance with a greater (or lesser) extent are more likely to enhance their performances than those experiencing misfit between PEU and the practice of participation. In Vietnam, listed companies might differently perceive environmental uncertainty, which leads to differences in their responses to those changes. In this sense, a proper fit between these two variables, not the context or the practice of participation alone enhances organisational performance (Gerdin, 2005a).

However, quantitative analyses find no effect of interactions between PEU and the adoption of NFPMs on organisational performance. Firstly, it appears that findings support the expectation of hypothesis 16<sub>a</sub>. That this, interactions between PEU and the adoption of NFPMs enhance organisational performance ( $\beta = 0.024$ ). However, this relationship is not statistical significant (t-statistic =1.308). Analysing 52 valid questionnaire collected from 100 random manufacturing New Zealand companies, Hoque (2005) finds that interactions between PEU and the usage of NFPMs enhance organisational performance. One plausible explanation for this contradiction might lie in differences in operationalisation of the adoption of NFPMs between the two studies. For Hoque (2005), this construct is operationalized by asking managers the extent to which their organisations use various NFPMs from four performance dimensions of BSC. In this study, the adoption of NFPMs is operationalized by asking the extent to which the

organisation uses NFPMs for different purposes. By doing so, this study assumes the adoption of NFPMs in listed Vietnamese at a certain level. Revealing a modest adoption of NFPMs, the qualitative analysis suggests usefulness of NFPMs in providing more open, external, and future-oriented management accounting information for managers facing high PEU. However, usefulness of these measures appears to be limited on linkage between various operational activities and long-term business strategy.

Secondly, the quantitative analysis suggests that interactions between PEU and decentralisation of decision-making appear to erode organisational performance ( $\beta = -0.126$ ), but this relationship is not statistically significant ( $t$ -statistic = 0.232). Thus, the expectation of hypothesis 16<sub>b</sub> is not supported. A reason for this might lie in units of analysis. For Covalleski *et al.* (2003), impacts of interactions between PMAS practices and contingent factors on performance might not work in the same way at different organisational levels. At the individual level, prior studies suggest interactions between PMAS practices and contingent variables can enhance managerial performance in terms of planning, co-ordinating, evaluating, supervising, staffing, negotiating and the like (e.g. Ezzamel, 1990; Gul and Chia, 1994; Budding, 2004). However, this study attempts to link such interactions to performance at the organisational level. The study emphasises decentralisation of decision-making within SBUs rather than corporations. Moreover, the qualitative analysis reveals that decentralisation of decision-making is employed to a great extent in some departments (e.g. sales, marketing, or R&D) rather than in all departments of organisations. Thus, interactions between PEU and decentralisation of decision-making might not result in enhancements of organisational performance. Otherwise, misfit between PEU and decentralisation of decision-making might occur in Vietnamese organisations.

Regarding moderating effect of task uncertainty, the study suggests interactions between task uncertainty and decentralisation of decision-making enhance organisational performance. This supports the postulation of hypothesis 17<sub>b</sub>. The finding is consistent with prior studies that suggest transformation from mechanic structure to organic structure when task uncertainty derived from changes in production technology increases (e.g. Woodward, 1965; Thompson, 1967; Chenhall, 2003). The quantitative analysis finds no evidence concerning enhancement of organisational performance due to interaction between task uncertainty and the adoption of NFPMs

(hypothesis 17<sub>a</sub>). However, qualitative analyses suggest emergence of outcome-oriented culture in Vietnamese companies leads to better organisational performance (e.g. Software Production Company). This inconsistency suggest a certain degree of misfit between task uncertainty and the adoption of NFPMs might occur (Gerdin, 2005b).

The findings show an inconsistency in quantitative analysis concerning results of hypothesis 17<sub>b</sub> and 16<sub>c</sub> in case decentralisation of decision-making and participation of lower level managers are considered different extent of managers' autonomy. In other words, PEU and task uncertainty should moderate relationships between those two practices and organisational performance. A plausible explanation for this might lie in measurement of decentralisation of decision-making. Six items used to measure this construct appear to direct respondents' attentions to operational activities related to production departments rather than other departments. According to Waterhouse and Tiessen (1978), task uncertainty have impacts on operational activities involving specification, implementation and co-ordination related input-output transformational procedures with a greater extent than PEU.

#### ***8.4.3 System form of fit***

Even though the quantitative phase does not focus on the system form of fit, this theme emerges from case studies. The qualitative findings suggest no cohesion between various control elements of PMASs in listed Vietnamese companies. This is in line with prior studies (e.g. Simons, 1995; Malmi and Brown, 2008; Sandelin, 2008; Ferreira and Otley, 2009; Grabner and Moers, 2013). Firstly, the extant literature suggests that the cohesion of a PMAS is built on a clear organisational vision, mission and strategy. These control elements enables the organisation to identify appropriate performance measures and other control aspects across organisational levels (Kaplan and Norton, 1996c; Ferreira and Otley, 2009). The qualitative analysis suggests that this alignment appears to be missed in Vietnamese organisations. Visions and missions are documented, but they are not comprehensively conveyed to all organisational members and the business strategy is not well-defined. This misalignment might root in the transformational process from centrally planned PMASs to market-oriented PMASs. In this situation, the organisation must tackle various control problems simultaneously. Thus, the cohesion of various control components could not be achieved in a short time-

period. In this sense, PMASs in Vietnamese organisations are considered a control package rather than a control system. The control elements of this package are not necessary to hold interdependence. Rather, the package consists of various control systems whose elements are interdependent (Grabner and Moers, 2013).

Another reason for this internal consistency could be continuity and instrumentalism of PMASs. The qualitative findings indicate that Vietnamese companies chose the system of performance evaluation and reward as a starting point for changing their PMASs. This encourages managers and employees to work harder and improve their productivity. This suggests the organisation responds to a specific control problem that directly influence rather than following textbook suggestion. Designing a PMAS with clear visions, missions as well as identifying key success factors and business strategies, which are followed by a comprehensive PMESs might be suitable for new established companies without constraints rather than studied companies constrained by various factors, especially SOEs (O'Connor *et al.*, 2004; O'Connor *et al.*, 2006; Li and Tang, 2009b).

When internal consistency of different control practices is taken into consideration, the organisation can avoid unnecessary costs of running PMASs and make the systems more effective. In this sense, organisations would attempt to optimize their PMASs. This requires managers who involves in solving control problems to understand the issue of interdependence in order to bring them into practice. Thus, inconsistency of PMASs might derive from limitations on managerial knowledge and experience of managers. These might not enable the managers to address reasons for linkage of different control elements, which leads to fragmentation of PMASs (Grabner and Moers, 2013). In the context of Vietnam, most interviewed managers of Fertiliser Company do not show very much understanding of PMASs-related issues. The personnel managers said that vision and missions of the company are written to ensure the presence of a standardized website rather than conveying to organisational members. In contrast, managers of Pharmaceutical Company and Software Production Company think that visions and missions of their companies make sense to them at a certain degree.

In brief, even though internal consistency of PMAS practices benefit organisations, this might be an ideal type of PMASs. This cohesion relies on various external and internal

factors embedded in the organisational history as well as knowledge and experience of managers.

#### ***8.4.4 The validity of the contingency-based model***

The underlying model is concerned with how contingencies shape PMASs and the impact of PMASs and of interaction between contingencies and PMASs on organisational performance. How contingencies shaped PMASs is a concern reflected in hypotheses 1 to 10 (using the selection form of fit). The impact of PMASs on organisational performance is a concern reflected in hypotheses 11 to 15. The impact of interaction between contingencies and PMASs on organisational performance is a concern reflected in hypotheses 16<sub>a,b,c,d,e</sub> and 17<sub>a,b,c,d,e</sub> (using the interaction form of fit)

Overall, the findings (discussed in sections 8.2.1, 8.2.2, 8.3 and 8.4) confirm the validity of the contingency-based model (see Otley, 1980; Hall, 2016; Otley, 2016). For Otley (2016), contingency theory provides a general framing or proposition in respect of relationships between the focal phenomena in research. It needs to be complemented by theories from economics and or psychology if relationships between contingencies, PMASs and organisational performance have to be explained (see Chenhall, 2003; Hartmann, 2005). In the study, very little evidence was found to support some particular hypotheses (5, 6, 10, 14, 15, 16<sub>a,c</sub> and 17<sub>a,b</sub>). While the general validity of contingency theory holds, it is therefore the case that particular dimensions of it are problematic. This pointed to the lack of universality in the theory as far as its entire specific dimensions are concerned (see section 3.3.6). Hence, the Vietnamese context is important in explaining findings, for examples, the relative impact of a more objective style in performance evaluation and rewards on organisational performance.

Prior findings are subject to several challenges. Firstly, only one single aspect of PMASs was included in the model in most prior studies rather than simultaneously examining several PMAS practices (see Chenhall, 2003; Otley, 2016). Comparing findings across studies face a huge challenge because relationships between contingencies, PMAS practices and organisational performance appear to vary between studies due to variations of time and contexts (Otley, 2016). Taking PEU for instance, various studies (e.g. Gordon and Narayanan, 1984; Chenhall and Morris, 1986; Gul and Chia, 1994; Chong and Chong, 1997) suggested that this variable has huge impacts on

the usefulness of NFPMs. Gordon and Narayanan (1984) analysed survey data of 34 usable senior managers' responses from American firms. The authors found considerable positive associations between PEU and three characteristics of broad scope information, namely future, non-financial and external orientation ( $\beta = 0.42, 0.52, 0.58$ , respectively with  $p < 0.01$ ).

Similarly, Chenhall and Morris (1986) suggested that PEU was positively associated with the adoption of NFPMs in term of the broad scope of information and timeliness ( $\beta = 0.35, 0.39$  respectively with  $p < 0.01$ ). These authors attempted to associate PEU with other variables (concentration of authority and interdependence of work flow) to explain broad scope of information and timeliness. Their findings indicated that these three variables could only explain 27% and 16% for the usefulness of broad scope of information and timeliness respectively. Recently, Henri (2006b) found a modest positive association between environmental uncertainty and diversity of measurement ( $\beta = 0.054, p < 0.1$ ) among Canadian manufacturing firms.

Additionally, the relationships between contingencies, PMASs and organisational performance were analysed by simple techniques of regression that do not enable studies to include multiple outcome variables in a model (Burkert *et al.*, 2014). Thus, this study attempts to overcome these limitations by using PLS-SEM that enables these relationships to be simultaneously tested in one model as suggested by Burkert *et al.* (2014). The study indicates that PEU and task uncertainty are the two most influential contingencies in the context of Vietnam. Specifically, these two variables provide a considerable explanation for variations of the adoption of NFPMs, decentralisation of decision-making, participation of lower level managers in setting targets for organisational performance, interactive use of NFPMs and objectivity in performance evaluation and rewards among listed Vietnamese companies (values of adjusted  $R^2$  were 0.388, 0.422, 0.54, 0.401, and 0.281 respectively). These values are relatively high compared with prior studies, which highlights the importance of contextual analyses for selecting factors (variables) included in the model (Broadbent and Laughlin, 2009; Ferreira and Otley, 2009).



## **8.5 Summary**

This chapter has integrated quantitative and qualitative findings to form a more complete picture of PMAS practices in Vietnam in relation to contingent variables. These discussions confirm alignment of the findings with prior studies concerning influences of contextual and institutional factors on PMAS practices. This is followed by discussions that provide insights into mechanisms through which PMAS practices enhance organisational performance in the context of Vietnam. Then, three forms of fit suggested by contingency theorists are discussed. In particular, the discussion challenges the presence of the system form of fit that intensively discussed in the extant literature.

## **Chapter 9: Conclusion and Suggestion for Further Research**

This chapter summarises the findings and presents overall conclusions of the study (section 9.1). Then, it states contributions of the study to the body of knowledge as well as the implications of research findings (section 9.2 and section 9.3 respectively). This is followed by an acknowledgement of limitations of the study (section 9.4) before proposing recommendation for future research (section 9.5)

### **9.1 Summary of the findings**

From contingency perspective, the study was conducted in an attempt to form a picture of PMAS practices in listed Vietnamese companies in relation to contingent variables (PEU, task uncertainty and organisational culture) and organisational performance. The study further attempted to understand mechanisms through which PMASs enhance organisational performance in the context of Vietnam. In order to achieve these objectives, closed-ended questionnaires were collected from chief accountants of 90 companies listed on Ho Chi Minh Stock Exchange, which couples with semi-structured interviews with 20 managers and collection of relevant documents from three listed companies.

In terms of PMAS practices, listed Vietnamese companies have started to adopt NFPMs at the organisational level, decentralising decision-making to lower level managers, encouraging their participation in setting targets for organisational performance, using NFPMs more interactively and employing a more objective style in performance evaluation and rewards. Strikingly, the adoption of NFPMs helps Vietnamese organisations to obtain a more complete picture and information of their organisations performance. These measures are intensively used for tracking the progression of pre-set organisational performance and initially used for discussing changes occurred in organisations. Moreover, decentralisation of decision-making enables organisations to establish more transparent right-responsibility mechanisms, which provides the lower level managers a greater extent of autonomy in decision-making than before. This couples with the practice of participation that encourages the lower level managers to provide information as well as give opinions, suggestions and feedback before finalizing organisational performance targets. Thus, people feel respected, valued and

capable to perform well. Furthermore, people feel fairer than before due to employment of a more objective style in performance evaluation and rewards. As the result, these practices, together, lead to better organisational performance through enhancement of the decision-making in terms of timeliness, evidence-based decisions and individual responsibility in decision-making and creation of both extrinsic and intrinsic motivation.

Concerning PEU, the Vietnamese organisation has perceived higher level of environmental uncertainty since the economic reform in 1986. As a result, a market-oriented economy leads to an increase in competition intensity in terms of products, prices, marketing, distribution and the like coupling with unpredictability of factors related to economics, technology, legal and political issues. In Vietnam, competition is characterised by co-existence of few large enterprises and numerous medium and small businesses providing the same types of product with relatively cheaper prices. The fake product is identified as a challenge for organisations in the process of building their brand reputation. Furthermore, PEU is considerably influenced by changes in governmental regulations and policies. These features of PEU lead to needs of information to improve the quality of decision-making and faster speed in response to changes in market demands. This couples with the process of equitizing SOEs that requires an active role of these organisations in improving efficiency and effectiveness. Consequently, these factors have initially driven changes in aforementioned PMAS practices. Specifically, the study suggests that an increase in PEU tend to result in the adoption of NFPMs, employing the practice of decentralisation and participating in the process of decision-making, using both financial performance measures and NFPMs more interactively and adopting a more objective style in performance evaluation and rewards. Moreover, the study suggests that interactions between PEU and participation of lower level managers in setting targets for organisational performance enhance organisational performance in the context of Vietnam.

In terms of task uncertainty, an increase in a number of exceptions in the process of carrying tasks challenges established rules, procedures and standards. This is partially embedded in product types and derived from modernisation of production technology in Vietnamese organisations. As a result, higher task uncertainty requires better co-operation between different parts of the organisation when the problems occurred. Therefore, an increase in task uncertainty influences most PMAS practices. In particular,

task uncertainty tend to result in the adoption of NPPMS at the individual level rather than the organisational level, employing decentralisation of decision-making, encouraging the lower level managers in the process of setting targets for organisational performance, interactive use of NFPMS and more objectivity in performance evaluation and rewards. The study further suggests that interactions between task uncertainty and decentralisation of decision-making enhance organisational performance.

Regarding organisational culture, the findings suggest cultural values in Vietnamese organisations are highly associated with Vietnamese cultural traits: relatively high power distance, high collectivism and risk (uncertainty) avoidance. These cultural values hinder changes in various PMAS practices, including communication across hierarchical levels, autonomy and active involvement of lower level managers in decision-making. This change resistance appears to be manifested at a lesser extent in private companies than equitized SOEs. Nonetheless, the study suggests a gradual employment of new organisational culture, namely outcome-oriented culture and innovation-oriented culture.

Quantitative and qualitative findings in relation to research objectives are presented in Table 9.1.

Research objectives	Quantitative findings	Qualitative findings
To explore characteristics of PMAS practices in Vietnam	<p>The findings indicate that these organisations have adopted NFPMs along with traditional FPMs in order to obtain information about different dimensions and areas of their performance. Even though these measures are not intensively used for formulating and implementing business strategy, they are used for tracking progression of pre-set targets in order to make sure achievement of such targets. Moreover, departmental managers in today's Vietnamese context have more autonomy in decision-making than they had before, which is coupled with a relatively high level of involvement in setting targets for their organisational performance. Moreover, a highly objective style of performance evaluation and rewards was evidenced.</p>	<p>The qualitative findings indicate infancy of the adoption of NFPMs in Vietnam. Although NFPMs are adopted at operational levels in three case studies, only the Pharmaceutical Company adopted the four BSC dimensions of organisational performance while the Software Production Company adopted only NFPMs from customer perspective and the presence of NFPMs was not evidenced in the Fertiliser Company. Moreover, the case studies reveal further details about other dimensions of organisational structures that were not captured by questionnaire regarding the nature of formalisation, the presence of team structure and enhancement of transparency of formal rules and regulations as well as clarification of responsibilities attached to managerial positions. Additionally, qualitative findings indicate a high level of involvement rather than influence of lower level managers in setting targets for organisational performance. These managers also become more active when participating in the decision-making process. Furthermore, interactive use of NFPMs is still limited in listed Vietnamese organisations because of no comprehensive links between vision and mission, business</p>

		<p>strategy, KSFs and adopted NFPMs. High objectivity in performance evaluation and rewards is perceived through employment of profit sharing and bonus payment scheme, which is considered as a starting point for changes in PMAS practices.</p> <p>While quantitative findings provide a picture of PMAS practices, the qualitative analyses suggest changes in PMAS practices in listed Vietnamese organisations. Integrated findings suggest inconsistency between different PMAS practices. Thus, the findings challenge the notion of system form of fit suggested by contingency theory. The findings suggest that organisations appear to respond to a specific control problem that matters to them the most. As a result, the system form of fit might be an ideal stage for organisations</p>
<p>To identify the impact of the external environment and production technology on PMAS practices</p>	<p>The findings confirm the presence of two types of fit suggested by contingency theory, namely the selection form of fit and the interaction form of fit. The former is concerned with congruence between PMAS practices and contextual variables while the latter aims to explain variation in performance between organisations due to the degree of fit between their PMAS practices and contextual variables. Overall, the finding indicates the existence of two types of</p>	<p>The qualitative findings reveals that PEU faced by listed Vietnamese organisations is characterised by co-existence of a few large enterprises and numerous medium and small businesses providing the same types of product with relatively cheaper prices.</p>

	<p>fit in Vietnamese context. That is, the level of PEU and task uncertainty might influence characteristics of PMAS practices. Moreover, interactions between PMAS practices and the two contingent variables have impacts on organisational performance.</p> <p>Specifically, the selection form of fit is manifested in a group of 10 hypotheses (from 1 to 10) concerning impacts of PEU and task uncertainty on five PMAS practices. The study hypothesized that PEU and task uncertainty has positive effects on four PMAS practices except objectivity in performance evaluation and rewards. The findings confirmed 7 out of 10 postulated hypotheses. However, positive effects of task uncertainty on the adoption of NFPMs and negative impacts of PEU and task uncertainty on objectivity in performance evaluation and rewards were statistically rejected. Rather, these two variables appear to be positively associated with the objectivity in the context of Vietnam.</p> <p>The interaction form of fit is manifested in a group of 6 hypotheses (16<sub>a, b, c</sub> and 17<sub>a, b, c</sub>) regarding effects of interactions between PMAS practices and contingent variables on organisational performance. The findings only confirmed a positive effect of interactions between PEU and participation of lower level managers in setting targets as well as a positive impact of interactions between task</p>	<p>Firstly, qualitative analyses confirm that more objectivity in performance evaluation and rewards is required in Vietnamese organisations facing higher PEU and task uncertainty. This is due to the fact that this style brings more fairness compared with the subjective style that has been employed for a long time in these organisations. Secondly, the qualitative analyses confirm that task uncertainty might not be positively associated with the adoption of NFPMs because of task interdependence at the individual levels.</p>
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	uncertainty and decentralisation of decision-making on organisational performance.	
To investigate whether organisational culture hinders or creates motivation for changes in PMAS practices.		Qualitative findings indicate that organisational culture characterised by relatively high power distance, collectivism and uncertainty avoidance hinder changes in PMAS practices. Simultaneously, new cultural practices, namely outcome-oriented culture and innovation-oriented culture, have emerged in Vietnam.
To identify the impacts of PMAS practices on organisational performance.	Impacts of 5 key PMAS practices on organisational performance were formulated in a group of 5 hypotheses (from 11 to 15). The findings confirmed positive effects of three PMAS practices, namely the adoption of NFPMs, decentralisation of decision-making and participation of lower level managers in setting targets for organisational performance, on organisational performance. However, the study did not find a positive effect of interactive use of NFPMs on organisational performance and a negative impact of objectivity in performance evaluation and rewards on organisational performance as the hypotheses postulated.	The qualitative findings confirm that interactive use of NFPMs does positively impact on organisational performance due to infancy of the adoption of NFPMs. Moreover, objectivity in performance evaluation and rewards appears to result in enhancement rather than erosion of organisational performance due to replacement of this style for the subjective style.
To understand mechanisms through which PMAS practices might result in better organisational		The qualitative analysis identified mechanisms that link PMASs and organisational performance in Vietnam. Firstly, changes in PMAS practices results in improvement of the decision-making quality in terms of timeliness, evidence-



performance.		<p>based decisions and individual responsibility in decision-making. Secondly, these changes create both extrinsic and intrinsic motivations for organisational members.</p> <p>Individuals feel more motivated not only with higher and fairer payments and opportunities for promotion, but also with having autonomy, being respected and valued for what they are doing as well as feeling capable in doing things.</p>
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Table 9.1: Quantitative and qualitative findings in relation to research objectives

The study achieves its objectives by employing mixed research methods. The questionnaire survey enables the study to achieve the research objective 1, 2 and 4, which subsequently is enriched by case studies. Additionally, the case study allows the study to achieve the objective 3 and 5. The mixed research methods considerably contribute to understanding about relationships between contingencies, PMAS practices and organisational performance. The questionnaire survey was popularly used in contingency-based studies, which enables the study to identify the effects of PEU and task uncertainty on PMAS practices and PMAS practices on organisational performance (Otley, 1980; Chenhall, 2003). The case study helps researchers to understand complexity of research phenomena in their contexts, which challenges pure statistical analyses (Otley, 1980; Laughlin, 1995). In this study, the case studies provide further explanations why certain hypotheses were rejected in the context of Vietnam such as the hypothesis 15 regarding relationships between objectivity in performance evaluation and rewards and organisational performance (see the research objective 4 in Table 9.1, for further details).

Moreover, the mixed methods enable the study to go beyond causal effects to understand causal mechanisms between variables, especially when research evidence needs to gather from different organisational levels (Cresswell and Plano Clark, 2007). In this regard, the questionnaire survey helps the study to identify the impacts of PMAS practices on organisational performance in Vietnam (the objective 4) while the case studies result in richer and deeper understanding about mechanisms through which organisational performance can be improved (the objective 5). Therefore, the mixed research design provides insights into relationships between PMAS practices and organisational performance in the context such as Vietnam (Saunders *et al.*, 2007).

## **9.2 Contribution of the study**

The extant literature acknowledges a vital role of PMASs in improving organisational performance through significantly enhancing organisational capacities and influencing people's behaviours (e.g. Otley, 1980; Franco-Santos *et al.*, 2012). Contingency theorists suggest that the nature of contingent factors of an organisation decides characteristics of PMAS practices employed by organisations and interactions between contingent factors and PMAS practices might have either positive or negative effects on

organisational performance (e.g. Burns and Stalker, 1961; Thompson, 1967; Drazin and Van De Ven, 1985; Chenhall, 2003; Gerdin and Greve, 2004). This study contributes to the existing body of knowledge in the field of management control, both empirically and theoretically. Empirically, the study systematically identifies characteristics of PMAS practices in Vietnam, which is relatively scarce. Moreover, the study confirms considerable influences of contingent variables embedded in external environment, production technology and organisational culture on shaping the nature of PMAS practices in Vietnam. Additionally, the findings provides insights into various aspects of PMAS practices in relation to the contingent factors and organisational performance, which have been rarely examined in Vietnam.

Theoretically, the findings support the validity of contingency theory that emphasises different forms of fit between contingent factors and PMAS practices on organisational performance. On the one hand, the findings suggest the presence of selection form of fit and interaction form of fit in the setting of Vietnam. On the other hand, the findings challenge the notion of systems form of fit. That is, even though internal consistency between various control practices might benefit the organisation, this might be ideal due to variety of control problems and differences in both contextual and institutional factors that organisations face. Moreover, the study suggest that contingency theory itself might be inadequate for examinations concerning relationships between contingent factors, PMAS practices and organisational performance. Therefore, the compliment of other theories is necessary (Chenhall, 2003; Hartmann, 2005). By employing a mixed research method design, the study suggest that system form of fit might be examined by qualitative rather than pure quantitative research (Drazin and Van De Ven, 1985; Gerdin and Greve, 2008; Grabner and Moers, 2013; Burkert *et al.*, 2014).

### **9.3 Implications of the findings**

The findings carry several implications. The study provides a relatively complete picture on PMAS practices in Vietnamese organisations that might benefit different stakeholders. Firstly, Vietnamese government expects employment of new managerial practices in equitized SOEs might become more profitable after equitization. The findings suggest certain impacts of the process of equitization on changes of PMAS practices. Employment of new PMAS practices and the speed of change might be

moderated by the presence of foreign shareholders or foreign managers in organisations due to diffusion of innovation. The government might consider the policy that encourage foreigners to become one of companies' shareholders when companies are equitized, not only when these companies are listed on the Stock Exchange.

Secondly, the findings indicate the presence of new recruited employees as an important factor in the process of implementing new PMAS practices. This suggests that accounting profession provided by Chartered Institute of Management Accountants (CIMA) might facilitate the introduction and the implementation of new PMAS practices in Vietnam. Therefore, recruitment of accountants with a CIMA qualification or providing financial support for young employees to pursue this internationally professional qualification might bring benefits for Vietnamese organisations in the process of implementing new PMAS practices.

Additionally, the study raises awareness for Vietnamese organisations about various factors influencing changes in PMAS practices: contextual variables (PEU and task uncertainty) tend to play an important role in initial changes while institutional factors (organisational culture) might lead to change resistance, especially when cultural elements embedded in PMAS practices might not align with existing cultural values of organisations. Therefore, the organisation can measure risks related to change resistance before implementing changes to make the process of change smother.

Another implication concerns continuously mutual impacts between PMAS practices and organisational culture. Despite the resistance, new PMAS practices can implement successfully due to relative separation between cultural values and cultural practices. The study highlights important influence of leadership and individuals (e.g. new recruited employees in the case of Software Production Company) in the process of implementing new PMAS practices.

#### **9.4 Limitation of the research and recommendation for future research**

This project attempted to provide a latest picture of PMAS practices in relation to contingent factors and organisational performance in Vietnam from contingency perspective. In spite of considerable endeavour to enhance validity and reliability of research findings, the study was subject to several limitations. The first limitation might lie

in the representativeness of the sample. The majority of the sample and three case studies in the second phase of the study are manufacturing companies. This might influence the external validity. In other words, even though the study attempts to generalize the findings to the listed Vietnamese companies, it appears that the research conclusions might be stronger for listed manufacturing companies than non-manufacturing ones due to non-response bias. Thus, the future study might focus on examination of PMAS practices in non-manufacturing companies to explore whether two types of companies practise different PMASs.

The second limitation might be derived from the selection of case study. Whilst the study attempts to explore impacts of organisational culture on PMAS practices, three selected companies are not geographically dispersed. Rather, these organisations are located in Northern areas where organisations appear to possess a stronger Chinese-oriented cultural background than Southern regions. Moreover, interviewed managers are in the middle age tend to have stronger Chinese-oriented cultural background than younger managers who tend to adopt Western cultures (Thang *et al.*, 2007). Therefore, these cultural differences may not be reflected in this study, which makes the qualitative findings ungeneralised for Southern organisations. Another limitation lies in political aspects of managerial issues. This leads to reluctance of managers in expressing their opinions in words. Hence, the researcher who has been growing up in Vietnam culturally interpreted non-verbal expectations, which might undermine accuracy of interviewees' opinions. The future research can confirm and improve the findings by collecting data from both Southern and Northern organisations to confirm cultural differences and whether this difference results in differences in PMAS practices.

The third limitation lies in not taking strategy into consideration at the quantitative phase. This is driven from a relatively high level of State intervention in the listed companies, which might considerably constrain them in formulating and implementing business strategy (Li and Tang, 2009a; Higgins *et al.*, 2015). The case studies provided opportunities for investigating PMASs in holistic manner, which confirmed infancy in strategy formulation and implementation compared with Western organisations. In this sense, the study suggest that PMASs approached from the notion of means-end relationships might rely on the context in which organisations operates. Thus, given a radical change in Vietnam due to joining WTO since 2007 and the Trans-Pacific Partnership, a trade

agreement between 12 countries on 4 February 2016 (Trungtamwto, 2016), the direction of relationships between certain contingencies, PMAS practices and organisational performance might be subject to change.

The fourth limitation lies in the nature of cross sectional survey research that does not indicate causality of the underlying model (De Vaus, 2001; Bryman and Bell, 2007; Van der Stede, 2014). Causality refers to an unambiguous conclusion regarding the relationship between an outcome variable (Y) and its predictive variable (X) in a given model (Van der Stede, 2014). This indicates that the presence of Y occurs if and only if X is presented. While being more applicable to natural science, this deterministic causation is not ideal for social sciences because human social behaviours are complex and constructive. Thus, social scientists approach causality from probabilistic rather than deterministic views. That is, a given variable increases (decreases) the probability of a particular outcome variable (De Vaus, 2001). The causality between variables can be exposed by employment of experiment design with randomization in social science (Cook and Campbell, 1979). Classically, this design achieves causality through random allocation to groups, the presence of one intervention and outcome variables measured two points of time: pre-intervention and post-intervention (De Vaus, 2001). Therefore, findings obtained from cross-sectional surveys that are characterised by data collected at one point in time with no intervention and no random allocation to groups are somehow subject to ambiguity (De Vaus, 2001; Bryman and Bell, 2007). From this perspective, this study only indicates associations rather than causality between contingent variables (PEU and task uncertainty), PMAS practices and organisational performance.

The fifth limitation is concerned with using subjective measurement of organisational performance. One reason for this is that the questionnaire and the case studies were completed and presented in an anonymised form. More importantly, this measurement was employed for this study because of its popularity in management accounting, especially when the study concerns whether PMAS practices might results in enhancement of organisational performance. In this sense, financial performance is subject to market-related noises rather than PMAS practices. By asking chief accountants to rate their firm performance in relation to performance of their firm's competitors, researchers can establish links between PMAS practices and organisational performance from points of view of

managers (King *et al.*, 2010). Despite this rationale, subjective measurement was used with no robustness checks because it relied on managers' points of view.

## Appendices

### Appendix 1: The questionnaire in English



#### **BUSINESS COLLEGE OF PHUTHO PROVINCE**

#### **The research project: Performance Management Systems, their antecedents and impacts on organisational performance in Vietnam**

Dear

I, Nguyen Thi Kim Oanh, am an accounting lecture in Business College of Phutho Province. Currently, I pursue doctoral research at Newcastle Business School, Newcastle University, United Kingdom.

I would like to invite you to participate in a survey for my research project that focuses on “Performance Management Systems, their antecedents and impacts on organisational performance in Vietnam”. The main objective of the study is to explore current practices of Performance Management Systems in companies listed on the Ho Chi Minh Stock Exchange in relation to their influential factors and impacts of these practices on organisational performance.

Please be assured that all information collected will be treated as strictly confidential. No individual identity will be revealed; only aggregate results will be presented.

Your participation is crucial to the completion of this study. If you need further information or would like to discuss any queries, please do not hesitate to contact me via email [t.k.o.nguyen@newcastle.ac.uk](mailto:t.k.o.nguyen@newcastle.ac.uk). Please click to this link to start the survey:

<https://www.surveymonkey.com/s/L9HSYCS>

Yours sincerely

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**SECTION 1: GENERAL INFORMATION OF RESPONDENTS**

1. What is your gender:    Male                                Female
  
2. How long have you working for the current company?
  - Less than five years
  - From 5 year to less than 10 year
  - From 10 years to 15 year
  - More than 15 years
  
3. How long are you in the current position?
  - Less than five years
  - From 5 year to less than 10 year
  - From 10 years to 15 year
  - More than 15 years
  
4. Which is your highest qualification?
  - Bachelor
  - Master
  - PhD
  - Other (please specify)
  
5. Do you have professional qualifications?
  - Vietnamese accounting certificate                                ACCA
  - CPA    CFA    CIMA
  - Others (please specify).....

**SECTION 2: GENERAL INFORMATION OF COMPANY**

6. Which industries are your company operating in (you can choose more than one, if applicable)?
 

<input type="checkbox"/> Agriculture, forestry, fishing	<input type="checkbox"/> Plastics	<input type="checkbox"/> Textiles
<input type="checkbox"/> Mining	<input type="checkbox"/> Electrical and cable	<input type="checkbox"/> Chemicals and bio-technology
<input type="checkbox"/> Constructions	<input type="checkbox"/> Electric and machinery	<input type="checkbox"/> Rubber
<input type="checkbox"/> Automobile	<input type="checkbox"/> Steel and iron	<input type="checkbox"/> Constructions
<input type="checkbox"/> Transportation	<input type="checkbox"/> Electronics	<input type="checkbox"/> Wholesale
<input type="checkbox"/> Communication	<input type="checkbox"/> Financial and insurance	<input type="checkbox"/> Retail
<input type="checkbox"/> Hotel and restaurant	<input type="checkbox"/> Tourism	<input type="checkbox"/> Glass and ceramics

Others (Please specify).....
  
7. How many full-time employees did your company recruit?
 

<input type="checkbox"/> 1-250	<input type="checkbox"/> 251- 500	<input type="checkbox"/> 501-1000	<input type="checkbox"/> 1,001-5,000	<input type="checkbox"/> Over 5,000
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9. What is your firm ownership structure?

- The State: ....%
- Domestic Vietnamese: ....%
- Foreigners: ....%

**SECTION 3: PERFORMANCE MANAGEMENT SYSTEMS**

10. Please indicate the extent to which your company used NFPMs for following purposes (1= not at all, 5 = to a great extent)

1. NFPMs links operating performance to long-term strategies	1 2 3 4 5
2. NFPMs show how business unit activities affect other units in the company	1 2 3 4 5
3. NFPMs provide a broad range of performance information about different areas of the company	1 2 3 4 5
4. A diverse set of NFPMs related to the key performance areas of the company is used	1 2 3 4 5
5. NFPMs provide a variety of information about important aspects of company's operations	1 2 3 4 5

12. Please indicate the extent to which departmental managers having the authority to make the following decisions within their departments (1= not at all to 5= to a great extent)

1. The number of employees required	1 2 3 4 5
2. Whether to employ a person	1 2 3 4 5
3. Overtime at the departmental level	1 2 3 4 5
4. Methods of personnel selections	1 2 3 4 5
5. Allocation of work among available employees	1 2 3 4 5
6. Machinery or equipment to be used	1 2 3 4 5
7. Correcting problems when they occur	1 2 3 4 5
8. Evaluating employees' performance	1 2 3 4 5

13. Please indicate the extent to which departmental managers participate in setting targets for organisational performance (1= not at all, 5 = to a great extent).

1. Departmental managers involves setting most performance targets	1 2 3 4 5
2. Departmental managers provide very sound and logical reasoning when the performance targets are revised	1 2 3 4 5
3. Departmental managers states requests and opinions and/or suggestions about the performance targets without being asked	1 2 3 4 5
4. Departmental managers have very much influence on the final performance targets	1 2 3 4 5
5. Departmental managers have very big contribution to set performance targets	1 2 3 4 5
6. The superior seek departmental managers' requests, opinions and/or suggestions when the performance targets are set	1 2 3 4 5

15. Please indicate the extent to which your company use NFPMs for following purposes (1= not at all, 5 = to a great extent)

1. NFPMs are used by top management as a means of questioning and debating the factors affecting the strategy	1 2 3 4 5
2. NFPMs are intensively used for interaction between top management and their subordinates in the process of achieving organisational performance targets	1 2 3 4 5
3. NFPMs demand regular and frequent attention from managers at all organisational levels	1 2 3 4 5
4. NFPMs are used to discuss changes occurring in the organisation among top management and their subordinates.	1 2 3 4 5

16. Please indicate the extent to which you agree with following statements about performance evaluation and rewards in your company (1= totally disagree, 5 = totally agree).

1. Pre-set targets of performance are documented	1 2 3 4 5
2. Pre-set targets of performance measures are quantified	1 2 3 4 5
3. The top management uses objective information from the information systems to evaluate the department managers' performance	1 2 3 4 5
4. The top management expresses the department managers' performance on quantitative rating	1 2 3 4 5
5. The department managers' bonus is based on the superior's judgment in quantitative terms about their performance	1 2 3 4 5
6. The department managers' bonus is based on objective information from the information systems about their performance	1 2 3 4 5

#### **SECTION 4: ORGANISATIONAL PERFORMANCE**

17. Please indicate your estimation of your company performance in relation to your competitors (1 = well-below average to 5 = well-above average)

1. The percentage of profit before tax on sale	1 2 3 4 5
2. Return on assets (ROA)	1 2 3 4 5
3. Return on investment (ROI)	1 2 3 4 5
4. Sales growth	1 2 3 4 5
5. Customer satisfaction	1 2 3 4 5
6. Product quality	1 2 3 4 5
7. Market share	1 2 3 4 5
8. Employee satisfaction	1 2 3 4 5

**SECTION 5: FACTORS INFLUENCE PMAS PRACTICES**

18. Please indicate the level of intensity of market competition your company faces (1= not at all to 5= to a great extent)

1. My firm's competitors provide similar products to mine with cheaper prices or the same prices but with more advanced features or functions	1 2 3 4 5
2. New products and/or services have emerged more often in my industry over the last five years	1 2 3 4 5
3. Product's marketing and distribution are very competitive in my industry	1 2 3 4 5
4. It is more challenging for my firm to maintain or improve the market share in my industry	1 2 3 4 5
5. Competitors have done things threatening to my firm	1 2 3 4 5

19. Please indicate the extent to which you agree with following statements on business environment of your firm over the last five years (1 = totally disagree, 5 = totally agree)

1. My firm's external economic environment become more unpredictable	1 2 3 4 5
2. My firm's external technological environment become more unpredictable	1 2 3 4 5
3. The tastes and preferences of my firm's customers have become more unpredictable	1 2 3 4 5
4. The behaviours of competitors become more unpredictable	1 2 3 4 5
5. The legal, political and economic constraints surrounding my firm stayed the same	1 2 3 4 5

20. Please indicate the extent to which you agree with following statements on carrying tasks within your company (1= not at all to 5= to a great extent)

1. Established materials (manuals, standards, directives, statutes, technical and professional books, and the like) cover the work.	1 2 3 4 5
2. One needs to know a lot of procedures and standard practices to do the work well.	1 2 3 4 5
3. Reliance on established procedures and practices is important.	1 2 3 4 5
4. A work is derived from various events.	1 2 3 4 5
5. It takes a lot of experience and training to know what to do when a problem arises.	1 2 3 4 5
6. Tasks require an extensive and demanding search for a solution.	1 2 3 4 5

**If you are interested in further interviews, please provide your contacts as follows:**

Name.....Job Title.....  
 Organization/Company Name.....  
 Address.....  
 Email address .....  
 Telephone Number.....

## Appendix 2: Interview questions in English conducted in 2013



### BUSINESS COLLEGE OF PHUTHO PROVINCE

#### **The research project: Performance Management Systems, their antecedents and impacts on organisational performance in Vietnam**

Dear

I, Nguyen Thi Kim Oanh, am an accounting lecture in Business College of Phutho Province. Currently, I pursue doctoral research at Newcastle Business School, Newcastle University, United Kingdom.

This email is sent to you due to your interest of further participation in this study. My research project focuses on “Performance Management Systems: its antecedents and impacts on organisational performance in Vietnam”. The main objective of the study is to explore the current practices of Performance Management Systems in companies listed on the Ho Chi Minh Stock Exchange in relation to their influential factors and impacts of these practices on organisational performance.

Information provided will be treated confidentially and anonymously. Anything that I write in my thesis or publications will not enable the company to be identified (unless the company wish otherwise). Moreover, if you are willing in interview participation, you will be kept anonymous and your information will not be provided for the third party without yours agreement.

It would be very helpful if you read two enclosed additional documents (interview protocol and informed consent form) in advance. If you need further information or would like to discuss any queries, please do not hesitate to contact me via email [t.k.o.nguyen@newcastle.ac.uk](mailto:t.k.o.nguyen@newcastle.ac.uk). Your participation is crucial to the completion of this study. I look forward to hearing from you soon.

Yours sincerely,

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## QUESTIONS FOR INTERVIEWS CONDUCTED IN 2013

### **Part 1: Interview questions**

#### ***A. Opening remark***

1. Name
2. About the research project
3. Confidential issue/ not judge or threaten/ record
4. What is your position in company?
5. How long have you been in this role?
6. What qualifications do you have?

#### ***B. Vision, mission, key success factors (KSFs) and business strategy of the company?***

1a. Does the company have vision and missions declared in written documents? Could you provide me such documents? What is the purpose of the company's vision and missions? Are the vision and missions communicated to lower level managers and employees? (For top managers)

1b. Do the company's leaders convey the vision and missions to you? What do the company's vision and missions mean to you? (For lower level managers)

2. Are factors influencing the company's success formally identified? If yes, please name them! Do they link to the company's vision and missions? If yes, how?

3. How does your company compete on the market, let say the business strategy? Do the company's business strategies and KSFs link to each other? If yes, how?

#### ***C. PMAS practices in relation to Organisational Performance***

1. Does the company adopt NFPMs? If yes, are there any reasons for this adoption? How are NFPMs used? Do they benefit the company? If yes, what are benefits?

2. Are FPMs and NPFMs used in order to discuss issues related to changes occurred within the company, and to adjust business strategy if necessary?
3. How do the company's budgetary systems work? How often budgets are revised (e.g. annually, quarterly, and monthly)? How often variance reports are prepared (e.g. weekly, monthly, quarterly)? Are there any changes in the practice of budgeting over the years? Why?
4. How are the company's performance targets set? Are there any changes in this practice over the years? Why?
5. What do you think of participation of lower level managers in the process of setting performance targets for the company? How do these managers participate in this process? Are there any changes in this practice over the years? Why?
6. Is the company re-organised recently? If yes, could you give me further details of this reorganisation? Why is the reorganisation needed? Is decision-making delegated to lower level managers with a greater extent than before the reorganisation occurred? If yes, why? And how do these changes influence co-operation, interactions and communications between managers across organisational levels?
7. How are individuals' performances evaluated and rewarded? Are there any changes in this practice over the years? If yes, why? Do you think that performance evaluation and rewards become more objective or subjective over the years? Could you give me some examples? Could you give me some reasons for these?

***D. Factors that influence PMAS practices?***

***DI: PEU***

1. Does the company face higher intensity of competition over the years in terms of price competition, product competition, marketing competition, distribution competition for example? Please give me further details!

2. Has the company experienced changes in external environment over the years regarding economic and technological environments, customers' taste and preferences as well as competitors' behaviours? Please give me further details!

3. How do more changing environment and more competitive market lead to changes in PMAS practices? Could you give me further details on the aforementioned PMAS practices that we have discussed (e.g. the adoption of NFPMs, decentralisation of decision-making, participation of lower level managers and employees in the process of setting targets for organisational performance, interactive use of NFPMs, objectivity in performance evaluation and rewards)? Let start with.....

4. Do you think that the State is the most decisive shareholder of the company? How much the State can influence PMAS practices of the company (e.g. the adoption of NFPMs, decentralisation of decision-making, participation of lower level managers and employees in the process of setting targets for organisational performance, interactive use of NFPMs, objectivity in performance evaluation and rewards)?

## ***D2. Task uncertainty***

1. What are relationships between different production departments of the company? Could you describe these relationships in further details?

2. Does the company have work-flow charts, procedures or rules to guide people at work? How much these things can help people to solve exceptions at work? Could you give me some examples? Does you think that there are more exceptions occurred than before? If yes, are there any reasons for this?

3. How do exceptions in the process of carrying out tasks lead to changes in PMAS practices that we have discussed (e.g. the adoption of NFPMs, decentralisation of decision-making, participation of lower level managers and employees in the process of setting targets for organisational performance, interactive use of NFPMs, objectivity in performance evaluation and rewards)? Let start with.....



### ***D3. Organisational culture***

1. Like various Asian countries, organisational culture in Vietnam might be characterised by relatively high power distance, collectivism and uncertainty avoidance. How much these traits are manifested in the company? Please give me some examples related to their manifestations?
2. Do you think that these cultural traits hinder changes in PMAS practices? If yes, could you give me further details? Are there any changes in these traits over the years? What do you think of relationships between changes in PMAS practices and changes in organisational culture?

### Appendix 3: Interview questions in English conducted in 2014



#### THE BUSINESS COLLEGE OF PHUTHO PROVINCE

#### **The research project: Performance Management Systems, their antecedents and impacts on organisational performance in Vietnam**

Dear

I, Nguyen Thi Kim Oanh, am an accounting lecture in Business College of Phutho Province. Currently, I pursue doctoral research at Newcastle Business School, Newcastle University, United Kingdom.

My research project focuses on “Performance Management Systems, their antecedents and impacts on organisational performance in Vietnam”. Following the interview conducted in 8/2013. I would like to invite you to participate in a further interview concerning with participation of lower level managers in the process of setting targets for organisational performance and related issues.

Provided information will be treated confidentially and anonymously. Things written in my thesis or publications will not enable the company or participants to be identified. Your information will not be provided to the third party without your agreement.

It would be very helpful if you read two enclosed additional documents (interview protocol and informed consent) in advance. If you need further information or would like to discuss any queries, please do not hesitate to contact me via email [t.k.o.nguyen@newcastle.ac.uk](mailto:t.k.o.nguyen@newcastle.ac.uk). Your participation is crucial to the completion of this study. I look forward to hearing from you soon.

Yours sincerely

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## QUESTIONS FOR INTERVIEWS CONDUCTED IN 2014

### *A. Opening remark*

1. Name
2. About the research project
3. Confidential issue/ not judge or threaten/ record
4. What is your position in company?
5. How long have you been in this role?
6. What qualifications do you have?

### **B. Participation of lower managers in the process of setting targets for the company performance and organisational performance**

1. How do you participate in the process of setting targets for organisational performance? How much influence do you have on finalising targets for the company's performance and on finalising targets for your department's performance? What aspects of the company's performance targets that you can influence the most? Why?
2. How often do you provide your opinions, suggestions or proposal to your superiors without their requests? Why?
3. Has the practice of participation changed over the years? Why? Are there any links between changes in decentralisation of decision-making and the practice of participation?
4. Does the practice of participation benefit the company? If yes, what are benefits? Do these benefits help the company to enhance its performance? Why?

## Appendix 4: Informed consent form

### INFORMED CONSENT FORM

**Title of project: Performance Management Systems, their antecedents and impacts on organisational performance in Vietnam**

Name of researcher: Nguyen Thi Kim Oanh

**Please tick the box**

1	I confirm that I have read and understand the provided information sheet for the above study.	<input type="checkbox"/>
2	I have been given the opportunity to ask questions about the project and my participation.	<input type="checkbox"/>
3	I agree to the audio-recording of discussion groups I take part in during the course of this study	<input type="checkbox"/>
4	I understand that all information will be treated as confidential, and will be anonymised	<input type="checkbox"/>
5	If applicable, separate terms of consent for interviews, audio, video or other forms of data collection have been explained and provided to me.	<input type="checkbox"/>
6	I agree to the use of anonymised direct quotes from study in publications and presentation arising from it.	<input type="checkbox"/>
7	I voluntarily agree to participate in the project.	<input type="checkbox"/>

#### **Participant:**

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

#### **Researcher:**

\_\_\_\_\_  
Name of Researcher

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Appendix 5: The number of interviews conducted in 2013 and 2014**

**THE NUMBER OF INTERVIEWS CONDUCTED IN 2013 AND 2014**

***The software company:***

Managers	Interviewing date	Time	The length of interview (minutes)
1. The Deputy Director	7/8/2013	3:42-4:58pm	76
2. Chief Accountant	7/8/2013	10:10-11:30am	80
3. Sale Manager	8/8/2013	3:35-4:42pm	67
4. HRM Manager	9/8/2013	07:39-8:53am	74
5. Director of Outsourcing centre	5/6/2014	8:00-9:00am	60
6. Sales Manager	5/6/2014	3:00-3:45pm	45
7. Production Manager	6/6/2014	10:00-11:00am	60

***The pharmaceutical company***

Managers	Interviewing date	Time	The length of interview (minutes)
1. Deputy General Director	21/8/2013	3:47-4:45pm	58
2. Chief Accountant	21/8/2013	2:02-3:05pm	63
3. Factory Director	22/8/2013	1:32-2:43pm	61
4. Manager of R&D Department	23/8/2013	07:40-8:55am	75
5. Factory Director	18/6/2014	12:30-13:15pm	45
6. Marketing Manager	19/6/2014	3:00-4:00pm	60

***The fertiliser company***

Managers	Interviewing date	Time	The length of interview (minutes)
1. Deputy General director	4/9/2013	8:00-9:30am	90
2. Chief Accountant	5/9/2013	8:00-9:30am	90
3. Personnel Manager	6/9/2013	1:35-2:43pm	68
4. Sales Manager	6/9/2013	8:00-9:00am	60
5. Marketing Manager	7/7/2014	8:00-9:00am	60
6. Chief Accountant	8/7/2014	2:00-3:00pm	60
7. Personal manager	9/7/2014	3:00-3:50pm	50

## References:

Abernethy, M.A. and Brownell, P. (1999) 'The role of budgets in organizations facing strategic change: an exploratory study', *Accounting, Organizations and Society*, 24(3), pp. 189-204.

Abernethy, M.A. and Lillis, A.M. (1995) 'The impact of manufacturing flexibility on management control system design', *Accounting, Organizations and Society*, 20(4), pp. 241-258.

Abrahamson, E. (1991) 'Managerial fads and fashions: the diffusion and rejection of innovations', *Academy of Management Review*, 16(3), pp. 586-612.

Amaratunga, D. and Baldry, D. (2002) 'Moving from performance measurement to performance management', *Facilities*, 20(5/6), pp. 217-223.

Ansari, S.L. (1977) 'An integrated approach to control system design', *Accounting, Organization and Society*, 2(2), pp. 101-112.

Ansari, S.M., Fiss, P.C. and Zajac, E.J. (2010) 'Made to fit: how practices vary as they diffuse', *Academy of Management Review*, 35(1), pp. 67-92.

Anthony, R. (1965) *Planning and Control Systems: A Framework for Analysis*. Boston: Division of Research: Harvard Business School.

Astrachan, C.B., Patel, V.K. and Wanzenried, G. (2014) 'A comparative study of CB-SEM and PLS-SEM for theory development in family firm research', *Journal of Family Business Strategy*, 5(1), pp. 116-128.

Atkinson, A.A., Waterhouse, J.H. and Wells, R.B. (1997) 'A Stakeholder Approach to Strategic Performance Measurement', *Sloan Management Review*, 38(3), pp. 25-37.

Bagozzi, R.P. and Yi, Y. (1998) 'On the evaluation of structure equation models', *Journal of the Academy Marketing Science*, 16(1), pp. 74-94.

Baiman, S. and Rajan, M.V. (1995) 'The Informational Advantages of Discretionary Bonus Schemes', *Accounting Review*, 70(4), pp. 557-579.

Baker, G., Gibbons, R. and Murphy, K.J. (1994) 'Subjective performance measures in optimal incentive contracts', *Quarterly Journal of Economics*, 109(1125-1156).

Balazs, S. (2008) *The Diplomacy of Economic Reform in Vietnam: the Genesis of Doi Moi, 1986-1989*.

- Banker, R.D., Potter, G. and Srinivasan, D. (2000) 'An Empirical Investigation of an Incentive Plan that Includes Nonfinancial Performance Measures', *Accounting Review*, 75(1), p. 65.
- Baraldi, A.N. and Enders, C.K. (2010) 'An introduction to modern missing data analyses', *Journal of School Psychology*, 48(1), pp. 5-37.
- Ben-Ner, A., Kong, F. and Lluís, S. (2012) 'Uncertainty, task environment, and organization design: An empirical investigation', *Journal of Economic Behavior & Organization*, 82(1), pp. 281-313.
- Berliner, T., Do, K.T. and McCarty, A. (2013) *Inequality, Poverty Reduction and the Middle-Income Trap in Vietnam*. Mekong Economics
- Bessire, D. and Baker, C.R. (2005) 'The French Tableau de bord and the American Balanced Scorecard: a critical analysis', *Critical Perspectives on Accounting*, 16(6), pp. 645-664.
- Bhimani, A. (2003) 'A study of the emergence of management accounting system ethos and its influence on perceived system success', *Accounting, Organizations and Society*, 28(6), pp. 523-548.
- Bisbe, J., Batista-Foguet, J.-M. and Chenhall, R. (2007) 'Defining management accounting constructs: A methodological note on the risks of conceptual misspecification', *Accounting, Organizations and Society*, 32(7-8), pp. 789-820.
- Bisbe, J. and Otley, D. (2004) 'The effects of the interactive use of management control systems on product innovation', *Accounting, Organizations and Society*, 29(8), pp. 709-737.
- Blaikie, N. (2000) *Designing Social Research* Cambridge: Polity.
- Bonner, S.E. and Sprinkle, G.B. (2002) 'The effects of monetary incentives on effort and task performance: theories, evidence, and a framework for research', *Accounting, Organizations and Society*, 27(4-5), pp. 303-345.
- Bourguignon, A., Malleret, V. and Nørreklit, H. (2004) 'The American balanced scorecard versus the French tableau de bord: the ideological dimension', *Management Accounting Research*, 15(2), pp. 107-134.
- Bouwens, J. and Abernethy, M.A. (2000) 'The consequences of customization on management accounting system design', *Accounting, Organizations and Society*, 25(3), pp. 221-241.

Bradburn, Norman M. Sudman, Seymour Vansink and Brian (2004) *Asking question: the definitive guide to questionnaire design-for resarch market, polliticall pll and social and heath questionnaire* Wiley.

Broadbent, J. and Laughlin, R. (2009) 'Performance management systems: A conceptual model', *Management Accounting Research*, 20(4), pp. 283-295.

Brooks, I. and Bate, P. (1994) 'The Problems of Effecting Change Within the British Civil Service: A Cultural Perspective', *British Journal of Management*, 5(3), p. 177.

Brownell, P. (1983) 'Leadership style, budgetary participation and managerial behavior', *Accounting, Organizations and Society*, 8(4), pp. 307-321.

Brownell, P. (1985) 'Budgetary Systems and the Control of Functionally Differentiated Organizational Activities', *Journal of Accounting Research*, 23(2), pp. 502-512.

Brownell, P. (1987) 'The role of accounting information, environment and management control in Multi-national organisations', *Accounting and Finance*, pp. 1-16.

Brownell, P. and Dunk, A.S. (1991) 'Task uncertainty and its interaction with budgetary participation and budget emphasis: Some methodological issues and empirical investigation', *Accounting, Organizations and Society*, 16(8), pp. 693-703.

Brownell, P. and Hirst, M. (1986) 'Reliance on Accounting Information, Budgetary Participation, and Task Uncertainty: Tests of a Three-Way Interaction', *Journal of Accounting Research*, 24(2), pp. 241-249.

Bruns, W.J. and Waterhouse, J.H. (1975) 'Budgetary Control and Organization Structure', *Journal of Accounting Research*, 13(2), pp. 177-203.

Bryman, A. (2004) *Social Research Methods*. Oxford University Press Inc., New York.

Bryman, A. (2008) *Social Research Methods*. 3rd edn. Oxford University Press.

Bryman, A. and Bell, E. (2007) *Business Research Methods*. 2nd edn. Oxford University Press.

Budding, G.T. (2004) 'Accountability, environmental uncertainty and government performance: evidence from Dutch municipalities', *Management Accounting Research*, 15(3), pp. 285-304.

Bullen, C.V. and Rockart, J.F. (1981) 'A primer on critical success factors'. Cambridge, MA: Center for Information Systems Research, MIT.



- Burkert, M., Davila, A., Mehta, K. and Oyon, D. (2014) 'Relating alternative forms of contingency fit to the appropriate methods to test them', *Management Accounting Research*, 25(1), pp. 6-29.
- Burnard, P. (1994) 'Searching for meaning: a method of analysing interview transcripts with a personal computer', *Nurse Education Today*, 14(2), pp. 111-117.
- Burney, L. and Widener, S.K. (2007) 'Strategic Performance Measurement Systems, Job - Relevant Information, and Managerial Behavioral Responses—Role Stress and Performance', *Behavioral Research in Accounting*, 19(1), pp. 43-69.
- Burney, L.L., Henle, C.A. and Widener, S.K. (2009) 'A path model examining the relations among strategic performance measurement system characteristics, organizational justice, and extra- and in-role performance', *Accounting, Organizations and Society*, 34(3–4), pp. 305-321.
- Burns, J. and Scapens, R.W. (2000) 'Conceptualizing management accounting change: an institutional framework', *Management Accounting Research*, 11(1), pp. 3-25.
- Burns, T. and Stalker, G. (1961) *The management of innovation*. London: Tavistock.
- Burrell, G. and Morgan, G. (1979) *Sociology paradigms and organisational analysis*. Ashgate.
- Cassell, C. and Symon, G. (1994) *Qualitative Methods in Organizational Research: A Practical Guide*. Sage Publications Ltd.
- Chandler, A.D. (1962) *Strategy and Structure: Chapters in the History of the Industrial Enterprise*. Cambridge, Massachusetts: The M.I.T. Press.
- Chapman, C.S. (1997) 'Reflections on a contingent view of accounting', *Accounting, Organizations and Society*, 22(2), pp. 189-205.
- Chau, P. (1997) 'Reexamining a model of evaluation information center success using a structural equation modeling approach', *Decision Sciences*, 28(309-334).
- Chenhall, R.H. (2003) 'Management control systems design within its organizational context: findings from contingency-based research and directions for the future', *Accounting, Organizations and Society*, 28(2–3), pp. 127-168.
- Chenhall, R.H. (2005) 'Integrative strategic performance measurement systems, strategic alignment of manufacturing, learning and strategic outcomes: an exploratory study', *Accounting, Organizations and Society*, 30(5), pp. 395-422.

Chenhall, R.H. and Brownell, P. (1988) 'The effect of participative budgeting on job satisfaction and performance: Role ambiguity as an intervening variable', *Accounting, Organizations and Society*, 13(3), pp. 225-233.

Chenhall, R.H. and Euske, K.J. (2007) 'The role of management control systems in planned organizational change: An analysis of two organizations', *Accounting, Organizations and Society*, 32(7-8), pp. 601-637.

Chenhall, R.H. and Morris, D. (1986) 'The Impact of Structure, Environment, and Interdependence on the perceived Usefulness of Management Accounting Systems', *Accounting Review*, 61(1), pp. 16-35.

Chi, C.G. and Gursoy, D. (2009) 'Employee satisfaction, customer satisfaction, and financial performance: An empirical examination', *International Journal of Hospitality Management*, 28(2), pp. 245-253.

Chin, W. (1998) 'The partial least square approach for structural equation modeling', in Marcoulides, G.A. (ed.) *Modern methods for business research*. Hillsdale, NJ: Lawrence Erlbaum Associates, pp. 295-336.

Chong, V.K. and Chong, K.M. (1997) 'Strategic Choices, Environmental Uncertainty and SBU Performance: A Note on the Intervening Role of Management Accounting Systems', *Accounting & Business Research (Wolters Kluwer UK)*, 27(4), pp. 268-276.

Chong, V.K., Eggleton, I.R.C. and Leong, M.K.C. (2005) 'The impact of market competition and budgetary participation on performance and job satisfaction: a research note', *The British Accounting Review*, 37(1), pp. 115-133.

Chow, C.W., Hwang, R.N.-C., Liao, W. and Wu, A. (1998) 'National culture and subordinates' upward communication of private information', *The International Journal of Accounting*, 33(3), pp. 293-311.

Chua, W.F. (1986) 'Radical Developments in Accounting Thought', *Accounting Review*, 61(4), p. 601.

Cobb, I., Helliard, C. and Innes, J. (1995) 'Management accounting change in a bank', *Management Accounting Research*, 6(2), pp. 155-175.

Cook, T. and Campbell, D. (1979) *Quasi-experimentation: Design and analysis issues for field settings*. Boston, MA: Houghton Mifflin Company.

Cooper, D. (1983) 'Tidiness, muddle and things: Commonalities and divergencies in two approaches to management accounting research', *Accounting, Organizations and Society*, 8(2-3), pp. 269-286.

Covaleski, M.A., Evans Iii, J.H., Luft, J.L. and Shields, M.D. (2003) 'Budgeting Research: Three Theoretical Perspectives and Criteria for Selective Integration', *Journal of Management Accounting Research*, 15, pp. 3-49.

Cresswell, J.W. and Plano Clark, V.L. (2007) *Disigning and Conducting Mixed Methods Research*. Thousand Oaks: Sage.

Creswell, J.W. and Clark, V.L.P. (2011) *Designing and Conducting Mixed Methods Research*. 2nd edn. Sage Publications Ltd.

Cugueró-Escofet, N. and Rosanas, J.M. (2013) 'The just design and use of management control systems as requirements for goal congruence', *Management Accounting Research*, 24(1), pp. 23-40.

Dachler, H.P. and Wilpert, B. (1978) 'Conceptual Dimensions and Boundaries of Participation in Organizations: A Critical Evaluation', *Administrative Science Quarterly*, 23(1), pp. 1-39.

Davis, S. and Albright, T. (2004) 'An investigation of the effect of Balanced Scorecard implementation on financial performance', *Management Accounting Research*, 15(2), pp. 135-153.

de Haas, M. and Kleingeld, A. (1999) 'Multilevel design of performance measurement systems: enhancing strategic dialogue throughout the organization', *Management Accounting Research*, 10(3), pp. 233-261.

De Vaus, D. (2001) *Research Design in Social Research*. London: Sage Publications Ltd.

De Vaus, D. (2002) *Analyzing Social Science Data: 50 Key Problems in Data Analysis*. Thousand Oaks: Sage.

Dess, G.G. and Robinson, R. (1984) 'Measuring Organisational Performance in the Absance of Objecive Measures: The case of the Privately-held Firm and Conglomerate Business Unit', *Strategic Management Journal*, 5, pp. 265-273.

Diekmann, K.A., Barsness, Z.I. and Sondak, H. (2004) 'Uncertainty, fairness perceptions and job satisfaction: a field study', *Social Justice Research*, 17, pp. 237-255.

Dirsmith, M.W. and Covaleski, M.A. (1985) 'Informal communications, nonformal communications and mentoring in public accounting firms', *Accounting, Organizations and Society*, 10(2), pp. 149-169.

Dixon, C. (2003) 'Developmental lesson of the Vietnamse transitional economy', *Progress in Development Studies*, 3(4), pp. 287-306.

Doan Ngoc Phi Anh, Duc-Tho Nguyen and Mia, L. (2011) 'Western management accounting practices in Vietnamese enterprises: Adoption and perceived benefits', *Pacific Accounting Review*, 23(2).

Donaldson, L. (2001) *The contingency theory of organisations*. Thousand Oaks, CA: Sage Publications.

Draft, R.L. and Macintosh, N.B. (1981) 'A Tentative Exploration into the Amount and Equivocality of Information Processing in Organizational Work Units', *Administrative science quarterly*, 26(2), pp. 207-224.

Drazin, R. and Van De Ven, A.H. (1985) 'Alternative Forms of Fit in Contingency Theory', *Administrative Science Quarterly*, 30(4), pp. 514-539.

Duiker, W.J. (1983) *Vietnam: Nation in Revolution* Boulder, Colorado: Westview Press.

Duiker, W.J. (1989) *Vietnam since the fall of Saigon*. Center for International Studies Ohio University.

Duncan, R.B. (1972) 'Characteristics of Organizational Environments and Perceived Environmental Uncertainty', *Administrative Science Quarterly*, (March), pp. 313-327.

Easterby-Smith, M., Richard, T. and Jackson, P. (2012) *Management Research*. 4th edn. Sage Publications Ltd.

Eccles, R.G. and Pyburn, P.J. (1992) 'Creating a comprehensive system to measure performance', *Management Accounting (USA)*, Oct, 74(4), pp. 41-45.

Emmanuel, C. and Otley, D. (1985) *Accounting for management control*. Van Norstrand Reinhold(UK).

Epstein, M. and Manzoni, J.-F. (1998) 'Implementing corporate strategy: from tableaux de bord to balanced scorecards', *European Management Journal*, 16, pp. 190-203.

Ezzamel, M. (1990) 'The impact of environmental uncertainty, managerial autonomy and size on budget characteristics', *Management Accounting Research*, 1(3), pp. 181-197.

Ferreira, A. and Otley, D. (2009) 'The design and use of performance management systems: An extended framework for analysis', *Management Accounting Research*, 20(4), pp. 263-282.

Ferris, K.R. (1982) 'Perceived environmental uncertainty, organizational adaptation, and employee performance: A longitudinal study in professional accounting firms', *Accounting, Organizations and Society*, 7(1), pp. 13-25.

Fforde, A. and de Vylder, S. (1996) *From Plan to Market: the economic transition in Vietnam*. Westview Press.

Field, A. (2009) *Discovering Statistics Using SPSS*. 3rd edn. Sage Publications Ltd.

Fisher, J. (1995) 'Contingency-based research on management control systems: categorisation by level of complexity', *Journal of Accounting Literature*, 14, pp. 24-53.

Fisher, J.G. (1998) 'Contingency Theory, Management Control Systems and Firm Outcomes: Past Results and Future Directions', *Behavioral Research in Accounting*, 10(Supplement 1998), pp. 47-64.

Flamholtz, E.G. (1983) 'Accounting, budgeting and control systems in their organizational context: Theoretical and empirical perspectives', *Accounting, Organizations and Society*, 8(2-3), pp. 153-169.

Flamholtz, E.G., Das, T.K. and Tsui, A.S. (1985) 'Toward an integrative framework of organizational control', *Accounting, Organizations and Society*, 10(1), pp. 35-50.

Folan, P. and Browne, J. (2005) 'A review of performance measurement: Towards performance management', *Computers in Industry*, 56(7), pp. 663-680.

Forbes, A. and Henley, D. (2012) *Vietnam Past and Present: The North*. Chiang Mai: Cognoscenti Books.

Fornell, C. and Larcker, D. (1981) 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of Marketing Research*, 18(1), pp. 39-50.

Franco-Santos, M., Kennerley, M., Micheli, P, Martinez, V., Mason, S., Bernard, M., Gray, D. and Neely, A. (2007) 'Towards a definition of a business performance measurement system', *International a difinition of a business performance measurement system*, 27(8), pp. 784-801.

Franco-Santos, M., Lucianetti, L. and Bourne, M. (2012) 'Contemporary performance measurement systems: A review of their consequences and a framework for research', *Management Accounting Research*, 23(2), pp. 79-119.

Frey, B.S. and Jegen, R. (2001) 'Motivation crowding theory: a survey of empirical evidence', *Journal of Economic Surveys*, 5(15), pp. 589-611.

Galletta, A. and Cross, W.E. (2013) *Mastering the Semi-Structured Interview and Beyond: from Research Design to Analysis and Publication*. New York University Press.

Gallhofer, S. and Haslam, J. (1997) 'Beyond accounting: the possibilities of accounting and "critical" accounting research', *Critical Perspectives on Accounting*, 8, pp. 71-95.

- Gallhofer, S., Haslam, J. and Yonekura, A. (2013) 'Further critical reflections on a contribution to the methodological issues debate in accounting', *Critical Perspectives on Accounting*, 24(3), pp. 191-206.
- Gerdin, J. (2005a) 'The Impact of departmental interdependencies and management accounting system use on subunit performance', *European Accounting Review*, 14(2), pp. 297-327.
- Gerdin, J. (2005b) 'The impact of departmental interdependencies and management accounting system use on subunit performance: A second look', *European Accounting Review*, 14(2), pp. 335-340.
- Gerdin, J. (2005c) 'Management accounting system design in manufacturing departments: an empirical investigation using a multiple contingencies approach', *Accounting, Organizations and Society*, 30(2), pp. 99-126.
- Gerdin, J. and Greve, J. (2004) 'Forms of contingency fit in management accounting research - a critical review', *Accounting, Organizations and Society*, 29(3-4), pp. 303-326.
- Gerdin, J. and Greve, J. (2008) 'The appropriateness of statistical methods for testing contingency hypotheses in management accounting research', *Accounting, Organizations and Society*, 33(7-8), pp. 995-1009.
- Ghalayini, A.M. and Noble, J.S. (1996) 'The changing basis of performance measurement', *International Journal of Operations & Production Management*, 16(8), pp. 63-80.
- Gielen, A.C., Kerkhofs, M.J.M. and Van Ours, J.C. (2010) 'How performance related pay affects productivity and employment', *Journal of Population Economics*, 23(1), pp. 291-301.
- Global Investment and Business Center, U. (2009) *Vietnam Financial and Trade Policy Handbook*. International Business Publications, USA.
- Gordon, L.A. and Miller, D. (1976) 'A contingency framework for the design of accounting information systems', *Accounting, Organizations and Society*, 1(1), pp. 59-69.
- Gordon, L.A. and Narayanan, V.K. (1984) 'Management accounting systems, perceived environmental uncertainty and organization structure: An empirical investigation', *Accounting, Organizations and Society*, 9(1), pp. 33-47.
- Govindarajan, V. (1984) 'Appropriateness of accounting data in performance evaluation: An empirical examination of environmental uncertainty as an intervening variable', *Accounting, Organizations and Society*, 9(2), pp. 125-135.

Govindarajan, V. (1986) 'Impact of participation in the budgetary process on managerial attitudes and performance: universalistic and contingency perspective', *Decision Sciences*, 17(4), pp. 496-516.

Grabner, I. and Moers, F. (2013) 'Management control as a system or a package? Conceptual and empirical issues', *Accounting, Organizations and Society*, 38(6–7), pp. 407-419.

Grafton, J., Lillis, A.M. and Widener, S.K. (2010) 'The role of performance measurement and evaluation in building organizational capabilities and performance', *Accounting, Organizations and Society*, 35(7), pp. 689-706.

Grix, J. (2002) 'Introducing Student to the Generic Terminology of Social Research', *Politics*, 22(3), pp. 175-186.

Groen, B.A.C., Wouters, M.J.F. and Wilderom, C.P.M. (2012) 'Why do employees take more initiatives to improve their performance after co-developing performance measures? A field study', *Management Accounting Research*, 23(2), pp. 120-141.

GSO, G.S.O. (2010) *Statistic Yearbook of Vietnam*. The Statistic.

GSO, G.S.O. (2014) *Satitistic Handbook of Vietnam*. The Statistic

Guilding, C. (1999) 'Competitor-focused accounting: an exploratory note ', *Accounting, Organizations and Society*, 24(7), pp. 583-595.

Guilding, C. and McManus, L. (2002) 'The incidence, perceived merit and antecedents of customer accounting: an exploratory note', *Accounting, Organizations and Society*, 27(1–2), pp. 45-59.

Gul, F.A. and Chia, Y.M. (1994) 'The effects of management accounting systems, perceived environmental uncertainty and decentralization on managerial performance: A test of three-way interaction', *Accounting, Organizations and Society*, 19(4–5), pp. 413-426.

Gummesson, E. (2000) *Qualitative Methods in Management Research*. 2nd edn. Sage Publication, Inc.

Guo, S. (2004) 'Economic transition in China and Vietnam: a comparative perspective', *Asian Profile*, 32(5).

Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1995) *Multivariate Data Analysis with Readings*. 4th edn. Prentice-Hall International, INC.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014) *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks: Sage.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) 'PLS-SEM: Indeed A Silver Bullet', *Journal of Marketing Theory and Practice* 19(2), pp. 139-151.

Hair, J.F., Sarstedt, M. and Ringle, C.M. (2012) 'An assesment of the use of partial least squares structural equation modeling in marketing research', *Journal of the Academy Marketing Science*, 40, pp. 414-433.

Hall, M. (2008) 'The effect of comprehensive performance measurement systems on role clarity, psychological empowerment and managerial performance', *Accounting, Organizations and Society*, 33(2-3), pp. 141-163.

Hall, M. (2011) 'Do comprehensive performance measurement systems help or hinder managers' mental model development?', *Management Accounting Research*, 22(2), pp. 68-83.

Hall, M. (2016) 'Realising the richness of psychology theory in contingency-based management accounting research', *Management Accounting Research*, 31, pp. 63-74.

Hamilton, G.G. (1984) 'Patriarchalism in Imperial China and Western Europe: A Revision of Weber's Sociology of Domination', *Theory and Sociology*, 13, pp. 393-425.

Harkness, J.A., Villa, A. and Edwards, B. (2010) 'Translation, adaptation and design', in Harkness, J.A., Braun, M., Edwards, B., Johnson, T.P., Lyberg, L.E., Mohler, P.P., Pennell, B.-E. and Smith, T.W (ed.) *Survey Methods in Multicultural, Multinational, and Multiregional Contexts*. A John Wiley and Sons, INC, Publication, pp. 117-141.

Harrison, G.L. (1992) 'The cross-cultural generalizability of the relation between participation, budget emphasis and job related attitudes', *Accounting, Organizations and Society*, 17(1), pp. 1-15.

Harrison, G.L. (1993) 'Reliance on accounting performance measures in superior evaluative style — The influence of national culture and personality', *Accounting, Organizations and Society*, 18(4), pp. 319-339.

Hartmann, F. and Slapničar, S. (2009) 'How formal performance evaluation affects trust between superior and subordinate managers', *Accounting, Organizations and Society*, 34(6-7), pp. 722-737.

Hartmann, F. and Slapničar, S. (2012) 'The perceived fairness of performance evaluation: The role of uncertainty', *Management Accounting Research*, 23(1), pp. 17-33.

Hartmann, F.G. (2005) 'The impact of departmental interdependencies and management accounting system use on subunit performance: A comment', *European Accounting Review*, 14(2), pp. 329-334.



Hartmann, F.G.H. and Moers, F. (1999) 'Testing contingency hypotheses in budgetary research: an evaluation of the use of moderated regression analysis', *Accounting, Organizations and Society*, 24(4), pp. 291-315.

Hau, L.N., Evangelista, F. and Thuy, P.N. (2013) 'Does it pay for firms in Asia's emerging markets to be market oriented? Evidence from Vietnam', *Journal of Business Research*, 66(12), pp. 2412-2417.

Henri, J.-F. (2006a) 'Management control systems and strategy: A resource-based perspective', *Accounting, Organizations and Society*, 31(6), pp. 529-558.

Henri, J.-F. (2006b) 'Organizational culture and performance measurement systems', *Accounting, Organizations and Society*, 31(1), pp. 77-103.

Higgins, D., Toms, S. and Filatotchev, I. (2015) 'Ownership, Financial Strategy and Performance: The Lancashire Cotton Textile Industry, 1918-1938', *Business History* 57(1), pp. 97-121.

Hirst, M.K. (1983) 'Reliance on Accounting Performance Measures, Task Uncertainty, and Dysfunctional Behavior: Some Extensions', *Journal of Accounting Research*, 21(2), pp. 596-605.

Hoang, H.T. (2014) *A report of pharmaceutical industry (Báo cáo ngành dược phẩm)*. FPT Securities.

Hofstede, G., Neuijen, B., Ohayv, D.D. and Sanders, G. (1990) 'Measuring organizational cultures: a qualitative and quantitative study across twenty cases', *Administrative science quarterly*, June, pp. 286–316.

Hofstede, G.H. (1980) *Culture's consequence: International differences in work-related culture*. Beverley Hills, CA: Sage.

Holbrook, A.L., Geen, M.C. and Krosnick, J.A. (2003) 'Telephone versus face-to-face interviewing of national probability samples with long questionnaires: comparison of respondent satisfying and social desirability response bias', *Public Opinion Quarterly*, 67, pp. 79–125.

Hongjiang, X., Jeretta Horn, N., Nord, G.D. and Binshan, L. (2003) 'Key issues of accounting information quality management: Australian case studies', *Industrial Management & Data Systems*, 103(7), pp. 461-470.

Hoogenboom, M. and Ossewarde, R. (2005) 'From iron cage to pigeon house: the birth of reflexive authority', *Organization Studies* 24(4), pp. 601-619.

Hopper, T. and Powell, A. (1985) 'Making sense of research into the organisational and social aspects of management accounting: a review of its underlying assumptions', *Journal of Management Studies*, 22(5), pp. 429-465.

Hopper, T., Tsamenyi, M. and Uddin, S. (2009) 'Management Accounting in less developed countries: what is known and needs knowing', *Accounting, Auditing & Accountability Journal*, 22(3), pp. 469-514.

Hopwood, A.G. (1972) 'An Empirical Study of the Role of Accounting Data in Performance Evaluation', *Journal of Accounting Research*, 10(3), pp. 156-182.

Hoque, Z. (2005) 'Linking environmental uncertainty to non-financial performance measures and performance: a research note', *The British Accounting Review*, 37(4), pp. 471-481.

Hoque, Z. and James, W. (2000) 'Linking Balanced Scorecard Measures to Size and Market Factors: Impact on Organizational Performance. (cover story)', *Journal of Management Accounting Research*, 12, pp. 1-17.

Hoque, Z., Mia, L. and Alam, M. (2001) 'Market competition, computer-aided manufacturing and use of multiple performance measures: an empirical study', *The British Accounting Review*, 33(1), pp. 23-45.

Hulland, J. (1999) 'Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies', *Strategic Management Journal*, 20(2), pp. 195-204.

Huu Quynh, T., Xuan Lam, D. and Mau Han, L. (2001) *Đại Cương Lịch Sử Việt Nam Toàn Tập, Phần 1 [The History of Vietnam, Volume 1]*. Education.

Huynh, T.D., Doan, V.D. and Goug, G.M. (2012) 'Vietnamese Accounting System Reform - Review and Prospect', *Australian Journal of Basic and Applied Sciences*, 6(9), pp. 629-651.

IFAC (1998) *International Management Accounting Practice Statement: Management Accounting Concepts*. New York.

Innes, J. and Mitchell, F. (1990) 'The process of change in management accounting: some field study evidence', *Management Accounting Research*, 1(1), pp. 3-19.

Investment, M.o.P.a. (2015) *Tình hình đầu tư nước ngoài năm 2014 (FDI 2014)*. Available at: <http://fia.mpi.gov.vn/tinbai/3206/Tinh-hinh-dau-tu-nuoc-ngoai-nam-2014> (Accessed: 14/01).

Irwin, J.R. and McClelland, G.H. (2001) 'Misleading Heuristics and Moderated Multiple Regression Models', *Journal of Marketing Research (JMR)*, 38(1), pp. 100-109.

- Ittner, C.D. and Larcker, D.F. (1998) 'Innovation in performance measurement: Trends and research applications', *Journal of Management Accounting Research*, 10, pp. 205-238.
- Ittner, C.D., Larcker, D.F. and Meyer, M.W. (2003a) 'Subjectivity and the Weighting of Performance Measures: Evidence from a Balanced Scorecard', *Accounting Review*, 78(3), pp. 725-758.
- Ittner, C.D., Larcker, D.F. and Randall, T. (2003b) 'Performance implications of strategic performance measurement in financial services firms', *Accounting, Organizations and Society*, 28(7-8), pp. 715-741.
- Ivankova, N.V., Creswell, J.W. and Stick, S.L. (2006) 'Using mixed-methods sequential explanatory design: from theory to practice', *Field Methods*, 18(1), pp. 3-20.
- Jamieson, N.L. (1993) *Understanding Vietnam*. Berkeley and Los Angeles: University of California Press.
- Jazayeri, M. and Scapens, R.W. (2008) 'The Business Values Scorecard within BAE Systems: The evolution of a performance measurement system', *The British Accounting Review*, 40(1), pp. 48-70.
- Jellesmark, A., Herling, S.F., Egerod, I. and Beyer, N. (2012) 'Fear of falling and changed functional ability following hip fracture among community-dwelling elderly people: an explanatory sequential mixed method study', *Disability and Rehabilitation*, 34(25), pp. 2124-2131.
- Jiambalvo, J., Watson, D.J.H. and Baumler, J.V. (1983) 'An examination of performance evaluation decisions in CPA firm subunits', *Accounting, Organizations and Society*, 8(1), pp. 13-29.
- Johansson, T. and Siverbo, S. (2009) 'Why is research on management accounting change not explicitly evolutionary? Taking the next step in the conceptualisation of management accounting change', *Management Accounting Research*, 20(2), pp. 146-162.
- Johnson, B. and Turner, L.A. (2003) 'Data collection strategies in mixed methods research', in Tashakkori, A. and Teddie, C. (eds.) *Handbook of Mixed Methods in Social and Behaviour Research*. Thousand Oaks: Sage, pp. 297-319.
- Johnson, H.T. and Kaplan, R.S. (1987) *Relevance lost: The rise and Fall of Management accounting*. Cambridge, MA: Harvard Business School.
- Joseph, B. (1969) *Vietnam: a political history*. London: Andre, Deutsch.

Kalagnanam, S.S. and Lindsay, R.M. (1999) 'The use of organic models of control in JIT firms: generalising Woodward's findings to modern manufacturing practices', *Accounting, Organizations and Society*, 24(1), pp. 1-30.

Kaplan, R.S. (2010) 'Conceptual foundations of the Balanced Scorecard'. Harvard Business School.

Kaplan, R.S. and Norton, D.P. (1992) 'The Balanced Scorecard: Measures that Drive Performance', *Harvard Business Review*, January-February, pp. 71-79.

Kaplan, R.S. and Norton, D.P. (1996a) *The Balanced Scorecard - Translating Strategy into Action*. Boston: Harvard Business School Press.

Kaplan, R.S. and Norton, D.P. (1996b) *The Balanced Scorecard*. Harvard Business School Press, Harvard.

Kaplan, R.S. and Norton, D.P. (1996c) 'Linking the Balanced Scorecard to Strategy', *California Management Review*, 39(1), pp. 53-79.

Kaplan, R.S. and Norton, D.P. (2001) 'Transforming the Balanced Scorecard from performance measurement to strategic management', *Accounting Horizons*, 15(1,2), pp. 87-104.

Karabag, S.F. and Berggren, C. (2014) 'Antecedents of firm performance in emerging economies: Business groups, strategy, industry structure, and state support', *Journal of Business Research*, 67(10), pp. 2212-2223.

Kasurinen, T. (2002) 'Exploring management accounting change: the case of balanced scorecard implementation', *Management Accounting Research*, 13(3), pp. 323-343.

Kennerley, M. and Neely, A. (2003) 'Measuring performance in a changing business environment', *International Journal of Operations & Production Management*, 23(2), pp. 213-229.

Khandwalla, P.N. (1972a) 'The Effect of Different Types of Competition on the Use of Management Controls', *Journal of Accounting Research*, 10(2), pp. 275-285.

Khandwalla, P.N. (1972b) 'Environment and its impacts on the organisation', *International Studies of Management & Organization*, 2(3), pp. 297-313.

King, N. and Horrocks, C. (2010) *Interview in Qualitative Research*. Sage Publication, Ltd.

King, R., Clarkson, P.M. and Wallace, S. (2010) 'Budgeting practices and performance in small healthcare businesses', *Management Accounting Research*, 21(1), pp. 40-55.

- Kippenberger, T. (1996) 'The performance pyramid', *The Antidote*, 1(1), pp. 10-11.
- Kolehmainen, K. (2010) 'Dynamic Strategic Performance Measurement Systems: Balancing Empowerment and Alignment', *Long Range Planning*, 43(4), pp. 527-554.
- Kunz, J. (2015) 'Objectivity and subjectivity in performance evaluation and autonomous motivation: An exploratory study', *Management Accounting Research*, 27, pp. 27-46.
- Kuvandikov, A., Pendleton A and Higgins, D. (2014) 'Employment Change after Takeovers: The Role of Executive Ownership', *British Journal of Industrial Relations*, 52(2), pp. 191-236.
- Kvale, S. (2007) *Doing interviews*. Sage Publications Ltd.
- Ladhari, R., Souiden, N. and Choi, Y.-H. (2015) 'Culture change and globalization: The unresolved debate between cross-national and cross-cultural classifications', *Australasian Marketing Journal (AMJ)*, 23(3), pp. 235-245.
- Lan, N. (2009) *Guerill Capitalism: the State in the market in Vietnam*. Oxford, UK: Chandos Publishing.
- Langfield-Smith, K. (1997) 'Management control systems and strategy: A critical review', *Accounting, Organizations and Society*, 22(2), pp. 207-232.
- Lau, C.M. and Caby, J. (2010) 'The effects of national culture on the role of participation in different task situations', *Advances in Accounting*, 26(1), pp. 128-133.
- Lau, C.M. and Roopnarain, K. (2014) 'The effects of nonfinancial and financial measures on employee motivation to participate in target setting', *The British Accounting Review*, 46(3), pp. 228-247.
- Laughlin, R. (1995) 'Methodological themes: Empirical research in accounting: alternative approaches and a case for "middle-range" thinking', *Accounting, Auditing & Accountability Journal*, 8(1), pp. 63-87.
- Lawrence, P.R. and Lorsch, J.W. (1967) 'Differentiation and Integration in Complex Organizations', *Administrative Science Quarterly*, 12(1), pp. 1-47.
- Le Chien, T. and Truong, Q. (2005) 'Human Resource Management Practices in a Transitional Economy: A Comparative Study of Enterprise Ownership Forms in Vietnam', *Asia Pacific Business Review*, 11(1), pp. 25-47.
- Le, K.N. (2003) *Investment of Rice Mills in Vietnam*. Cantho University in Vietnam.
- Lebas, M.J. (1995) 'Performance measurement and performance management', *International Journal of Production Economics*, 41(1-3), pp. 23-35.

Lee, A.S. (1991) 'Omtergrating positivist and interpretive approaches to organisational research', *Organization Science*, 2(4), pp. 342-365.

Lee, C.-L. and Yang, H.-J. (2011) 'Organization structure, competition and performance measurement systems and their joint effects on performance', *Management Accounting Research*, 22(2), pp. 84-104.

Li, P. and Tang, G. (2009a) 'Performance measurement design within its organisational context—Evidence from China', *Management Accounting Research*, 20(3), pp. 193-207.

Li, P. and Tang, G. (2009b) 'Performance measurement design within its organisational context - Evidence from China', *Management Accounting Research*, 20(3), pp. 193-207.

Libby, T. and Lindsay, R.M. (2010) 'Beyond budgeting or budgeting reconsidered? A survey of North-American budgeting practice', *Management Accounting Research*, 21(1), pp. 56-75.

Lim, D. (2014) *Economic Growth and Employment in Vietnam*. Routledge.

Lind, B.A. and van den Bos, K. (2002) 'When fairness works: toward a general theory of uncertain management', *Research in Organizational Behavior*, 24, pp. 181-223.

Lindquist, T.M. (1995) 'Fairness as an Antecedent to Participative Budgeting: Examining the Effects of Distributive Justice, Procedure Justice and Referent Cognitions on Satisfaction and Performance', *Journal of Management Accounting Research*, 7(Fall 1995), pp. 122-148.

Loc, T.D., Lanjouw, G. and Lensink, R. (2006) 'The impact of privatization on firm performance in a transition economy', *Economics of Transition*, 14(2), pp. 349-389.

Lucius, C. (2009) *Vietnam's Political Process: How education shapes political decision-making*. Hoboken: Routledge.

Lueg, R. and Borisov, B.G. (2014) 'Archival or perceived measures of environmental uncertainty? Conceptualization and new empirical evidence', *European Management Journal*, 32(4), pp. 658-671.

Luft, J. and Shields, M.D. (2003) 'Mapping management accounting: graphics and guidelines for theory-consistent empirical research', *Accounting, Organizations and Society*, 28(2-3), pp. 169-249.

Lynch, R.L. and Cross, K.F. (1992) *Measure up – Yardsticks for continuous improvement*. Cambridge, MA: Basil Blackwell.

- Macintosh, N.B. and Daft, R.L. (1987) 'Management control systems and departmental interdependencies: An empirical study', *Accounting, Organizations and Society*, 12(1), pp. 49-61.
- Malina, M.A. and Selto, F.H. (2001) 'Communicating and Controlling Strategy: An Empirical Study of the Effectiveness of the Balanced Scorecard', *Journal of Management Accounting Research*, 13, pp. 47-90.
- Malmi, T. (1997) 'Towards explaining activity-based costing failure: accounting and control in a decentralized organization', *Management Accounting Research*, 8(4), pp. 459-480.
- Malmi, T. (2001) 'Balanced scorecards in Finnish companies: A research note', *Management Accounting Research*, 12(2), pp. 207-220.
- Malmi, T. and Brown, D.A. (2008) 'Management control systems as a package - Opportunities, challenges and research directions', *Management Accounting Research*, 19(4), pp. 287-300.
- Malterud, K. (2012) 'Systematic text condensation: A strategy for qualitative analysis ', *Scandinavian Journal of Public Health*, 40, pp. 795-805.
- Manzo, A.N. and Burke, J.M. (2012) 'Increasing response rate in Web-based/Internet Survey', in Gideon, L. (ed.) *Hanbook of Survey Methodology for the Social Scinces*. Springer, pp. 327-344.
- Markus, M.L. and Pfeffer, J. (1983) 'Power and the design and implementation of accounting and control systems', *Accounting, Organizations and Society*, 8(2-3), pp. 205-218.
- McFarlin, D.B. and Sweeney, P.D. (1992) 'Research notes: distributive and procedural justice as predictors of satisfaction with personal and organisational outcomes', *Academy of Management Journal*, 35(3), pp. 626-637.
- Merchant, K.A. (1981) 'The Design of the Corporate Budgeting System: Influences on Managerial Behavior and Performance', *Accounting Review*, 56(4), p. 813.
- Merchant, K.A. (1984) 'Influences on departmental budgeting: an empirical examination of a contingency model', *Accounting, Organizations and Society*, 9(3-4), pp. 291-307.
- Merchant, K.A. (1990) 'The effects of financial controls on data manipulation and management Myopia', *Accounting, Organizations and Society*, 15(4), pp. 297-313.

Merchant, K.A., Chow, C.W. and Wu, A. (1995) 'Measurement, evaluation and reward of profit center managers: A cross-cultural field study', *Accounting, Organizations and Society*, 20(7-8), pp. 619-638.

Merchant, K.A. and Van de Ven, A.H. (2007) *Management Control System*. 2nd edn. Prentice Hall, Pearson Education Limited, Harlow, Essex, England.

Merchant, K.A. and Van der Stede, W.A. (2003) *Management Control Systems: Performance Measurement, Evaluation and Incentives*. Pearson Education Limited, Essex.

Mia, L. and Chenhall, R.H. (1994) 'The usefulness of management accounting systems, functional differentiation and managerial effectiveness', *Accounting, Organizations and Society*, 19(1), pp. 1-13.

Mia, L. and Clarke, B. (1999) 'Market competition, management accounting systems and business unit performance', *Management Accounting Research*, 10(2), pp. 137-158.

Milani, K. (1975) 'The Relationship of Participation in Budget-Setting to Industrial Supervisor Performance and Attitudes: A Field Study', *Accounting Review*, 50(2), p. 274.

Modell, S. (2005) 'Triangulation between case study and survey methods in management accounting research: An assessment of validity implications', *Management Accounting Research*, 16(2), pp. 231-254.

Moers, F. (2005) 'Discretion and bias in performance evaluation: the impact of diversity and subjectivity', *Accounting, Organizations and Society*, 30(1), pp. 67-80.

Morgan, G. and Smircich, L. (1980) 'The Case for Qualitative Research', *Academy of Management Review*, 5(4), pp. 491-500.

Nahm, A.Y., Vonderembse, M.A. and Koufteros, X.A. (2003) 'The impact of organizational structure on time-based manufacturing and plant performance', *Journal of Operations Management*, 21(3), pp. 281-306.

Neely, A. (1999) 'The performance measurement revolution: why now and what next?', *International Journal of Operations & Production Management*, 19(2), pp. 205-228.

Neely, A., Gregory, M. and Platts, K. (1995) 'Performance measurement system design: a literature review and research agenda', *International Journal of Operations & Production Management*, 15(4), pp. 80-116.

Nguyen, H.A. (2008) *A Study of Equitization and Firm Performance in Vietnam*. Sogang University.



- Nørreklit, H. (2000) 'The balance on the balanced scorecard a critical analysis of some of its assumptions', *Management Accounting Research*, 11(1), pp. 65-88.
- Nouri, H. and Parker, R.J. (1998) 'The relationship between budget participation and job performance: The roles of budget adequacy and organizational commitment', *Accounting, Organizations and Society*, 23(5-6), pp. 467-483.
- O'Connor, N.G. (1995) 'The influence of organizational culture on the usefulness of budget participation by Singaporean-Chinese managers', *Accounting, Organizations and Society*, 20(5), pp. 383-403.
- O'Connor, N.G., Chow, C.W. and Wu, A. (2004) 'The adoption of "Western" management accounting/controls in China's state-owned enterprises during economic transition', *Accounting, Organizations and Society*, 29(3-4), pp. 349-375.
- O'Connor, N.G., Deng, J. and Luo, Y. (2006) 'Political constraints, organization design and performance measurement in China's state-owned enterprises', *Accounting, Organizations and Society*, 31(2), pp. 157-177.
- Otley, D. (1999) 'Performance management: a framework for management control systems research', *Management Accounting Research*, 10(4), pp. 363-382.
- Otley, D. (2003) 'Management control and performance management: whence and whither?', *The British Accounting Review*, 35(4), pp. 309-326.
- Otley, D. (2016) 'The contingency theory of management accounting and control: 1980-2014', *Management Accounting Research*, 31, pp. 45-62.
- Otley, D.T. (1978) 'Budget use and managerial performance', *Journal of Accounting Research*, 16(1), pp. 122-149.
- Otley, D.T. (1980) 'The contingency theory of management accounting: achievements and prognosis', *Accounting, Organizations and Society*, 5, pp. 413-428.
- Otley, D.T. and Berry, A. (1994) 'Case study research in management accounting and control', *Management Accounting Research*, 5, pp. 45-65.
- Ouchi, W.G. (1979) 'A conceptual framework for the design of organisation control mechanism', *Management Science*, 25(9), pp. 833-848.
- Pallant, J. (2007) *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. Australia: Allen & Unwin.
- Parker, R.J. and Kyj, L. (2006) 'Vertical information sharing in the budgeting process', *Accounting, Organizations and Society*, 31(1), pp. 27-45.

Patton, M.Q. (2001) *Qualitative research and evaluation methods*. Sage Publications, Inc.

Perera, S., Harrison, G. and Poole, M. (1997) 'Customer-focused manufacturing strategy and the use of operations-based non-financial performance measures: A research note', *Accounting, Organizations and Society*, 22(6), pp. 557-572.

Perrow, C. (1970) *Organizational Analysis: A Sociological View*. Belmont, CA: Wadsworth.

Perrow, C.A. (1967) 'Framework for the Comparative Analysis of Organizations', *American Sociological Review*, 32(2, April), pp. 194-208.

Peter, S. (2010) *Case Study Research What, Why and How?* Sage Publications.

Pham, D.N. (2005) 'Confucianism and the conception of the law in Vietnam', in Gillespie, J. and Nicholson, P. (eds.) *Asian socialism and legal change: the dynamics of Vietnamese and Chinese reform*. The Australian National University Asia Pacific Press, pp. 76-90.

Phuong, N.C. and Jacques, R. (2011) 'Economic transformation and accounting system reform in Vietnam', *European Accounting Review*, 20(4), pp. 693-725.

Phuong, N.C. and Nguyen, T.D.K.N. (2012) 'International harmonization and national particularities of accounting.', *Journal of Accounting and Organisational Change*, 8(3), pp. 431-451.

Pierre, B. and Daniel, H. (2011) *Indochina: an ambiguous colonizatin, 1858-1954*. University of California Press.

Porter, M.E. (1980) *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press, New York.

Porter, M.E. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance* Free Press, New York.

Quinn, R.E. and Rohrbaugh, F. (1983) 'A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis', *Management Science*, 29(3, March), pp. 363-377.

Richardson, H.A., Vandenberg, R.J., Blum, T.C. and Roman, P.M. (2002) 'Does Decentralization Make a Difference for the Organization? An Examination of the Boundary Conditions Circumscribing Decentralized Decision-Making and Organizational Financial Performance', *Journal of Management*, 28(2), pp. 217-244.

Riedel, J.A., Nebeker, D.M. and Cooper, B.L. (1988) 'The influence of monetary incentives on goal choice, goal commitment, and task performance', *Organizational Behavior and Human Decision Processes*, 42(2), pp. 155-180.

Ronal Czaja and Blair, J. (2005) *Designing surveys: a guide to decisions and procedures*. 2nd edn. Pin Forge Press.

Ryan, R.M. and Deci, E.L. (2000) 'Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being', *American Psychologist*, 55(1), pp. 68-78.

Saldaña, J. (2013) *The coding manual for qualitative researchers*. 2nd edn. London: SAGE Publications Ltd.

Sandelin, M. (2008) 'Operation of management control practices as a package - A case study on control system variety in a growth firm context', *Management Accounting Research*, 19(4), pp. 324-343.

SarDesai, D.R. (1992) *Vietnam: the struggle for National Identity*. San Francisco: Westview Press.

Saunders, M., Lewis, P. and Thornhill, A. (2007) *Research methods for business students*. 6th edn. Pearson Education Limited.

Scapens, R.W. (1990) 'Researching management accounting practice: The role of case study methods', *The British Accounting Review*, 22(3), pp. 259-281.

Scott, W.R. and David, G.F. (2007) *Organisations and Organising: Rational, Natural and Open System Perspectives*. 1st edn. Prentice Hall.

Shane, S. (1995) 'Uncertainty Avoidance and the Preference for Innovation Championing Roles', *Journal of International Business Studies*, 26(1), pp. 47-68.

Shields, J.F. and Shields, M.D. (1998) 'Antecedents of participative budgeting', *Accounting, Organizations and Society*, 23(1), pp. 49-76.

Shields, M.D. and Young, S.M. (1993) 'Antecedents and Consequences of Participative Budgeting: Evidence on the Effects of Asymmetrical Information', *Journal of Management Accounting Research*, 5, pp. 265-280.

Sieber, S.D. (1973) 'The integration of fieldwork and survey methods', *American Sociological Review*, 78(6), pp. 1335-1359.

Sifianou, M. (2013) 'The impact of globalisation on politeness and impoliteness', *Journal of Pragmatics*, 55, pp. 86-102.

- Simons, H. (2009) *Case study research in practice*. Sage.
- Simons, R. (1995) *Levers of control*. Boston: Harvard Business School Press.
- Simons, R. (2000) *Performance measurement & control systems for implementing strategy: Text and Cases*. Prentice Hall.
- Speckbacher, G., Bischof, J. and Pfeiffer, T. (2003) 'A descriptive analysis on the implementation of Balanced Scorecards in German-speaking countries', *Management Accounting Research*, 14(4), pp. 361-388.
- Sprinkle, G.B. (2003) 'Perspectives on experimental research in managerial accounting', *Accounting, Organizations and Society*, 28(2-3), pp. 287-318.
- Sulaiman, S. and Mitchell, F. (2005) 'Utilising a typology of management accounting change: An empirical analysis', *Management Accounting Research*, 16(4), pp. 422-437.
- Teddie, C. and Tashakkori, A. (2009) *Foundation of mixed methods research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioural Sciences*. Sage.
- Thang, L.C., Rowley, C., Quang, T. and Warner, M. (2007) 'To what extent can management practices be transferred between countries?: The case of human resource management in Vietnam', *Journal of World Business*, 42(1), pp. 113-127.
- Thi Quy, V. and Duc Khuong, N. (2011) 'Corporate Ownership Structure and Organisational Culture in A transition Economy: The Case of Vietnam', *International Journal of Economics and Finance*, 3(4, September 2011), pp. 36-47.
- Thomas, G. (2011) *How to do your case study*. Sage.
- Thompson, J.D. (1967) *Organizationas in Action*. New York: MCGraw-Hill.
- Tomkins, C. and Groves, R. (1983) 'The everyday accountant and researching his reality', *Accounting, Organizations and Society*, 8(4), pp. 361-374.
- Trungtamwto (2016) 'Gia nhập TPP- Doanh Nghiệp Nhà Nước sẽ ra sao? (Potential impacts of TPP on SOEs?)'. 14/06/2016.
- Truong, Q. and Nguyen, T.V. (2002) 'Management Style and Organistational Effectiveness in Vietnam', *Research and Practice in Human Resource Management*, 10(2), pp. 36-55.
- Tsui, J.S.L. (2001) 'The impact of culture on the relationship between budgetary participation, management accounting systems, and managerial performance: An

analysis of Chinese and Western managers', *The International Journal of Accounting*, 36(2), pp. 125-146.

Tymond Jr, W.G., Stout, D.E. and Shaw, K.N. (1998) 'Critical analysis and recommendations regarding the role of perceived environmental uncertainty in behavioural accounting research', *Behavioural Research in Accounting*, 10, pp. 23-46.

Ukko, J., Tenhunen, J. and Rantanen, H. (2007) 'Performance measurement impacts on management and leadership: Perspectives of management and employees', *International Journal of Production Economics*, 110(1–2), pp. 39-51.

Umit, S.B., Kepa, M., Sai, N., Patrizia, G. and Trevor, T. (2006) 'Dynamics of performance measurement and organisational culture', *International Journal of Operations & Production Management*, 26(12), pp. 1325-1350.

Usunier, J.C. (1998) *International and Cross-Culture Management Research*. London: Sage.

Vaivio, J. (1999) 'Exploring a `non-financial' management accounting change', *Management Accounting Research*, 10(4), pp. 409-437.

Van Den Berg, P.T. and Wilderom, C.P.M. (2004) 'Defining, Measuring, and Comparing Organisational Cultures', *Applied Psychology*, 53(4), pp. 570-582.

Van den Bos, K. (2001) 'Uncertainty management: the influence of uncertainty salience on reactions to perceived procedural fairness', *Journal of Personality and Social Psychology*, 80, pp. 931-941.

van der Geer, E., van Tuijl, H.F.J.M. and Rutte, C.G. (2009) 'Performance management in healthcare: Performance indicator development, task uncertainty, and types of performance indicators', *Social Science & Medicine*, 69(10), pp. 1523-1530.

Van der Stede, W.A. (2014) 'A manipulationist view of causality in cross-sectional survey research', *Accounting, Organizations and Society*, 39(7), pp. 567-574.

Van der Stede, W.A., Mark Young, S. and Xiaoling Chen, C. (2007) 'Doing Management Accounting Survey Research', in Christopher S. Chapman, A.G.H. and Michael, D.S. (eds.) *Handbooks of Management Accounting Research*. Elsevier, pp. 445-478.

Van Muijen, J.J., Koopman, P., De Witte, K., De Cock, G., Susanj, Z., Lemoine, C., Bourantas, D., Papalexandris, N., Branyicski, I., Spaltro, E., Jesuino, J., Gonzalves Das Neves, J., Pitariu, H., Konrad, E., Peiró, J., González-Romá, V. and Turnipseed, D. (1999) 'Organisational Culture: The Focus Questionnaire', *Journal of Work and Organizational Psychology*, 4(4), pp. 551-568.

Van Veen-Dirks, P. (2010) 'Different uses of performance measures: The evaluation versus reward of production managers', *Accounting, Organizations and Society*, 35(2), pp. 141-164.

Venkatraman, N. and Ramanujam, V. (1986) *Measurement of Business Economic Performance: An Examination of Method Convergence*, August, 1986.

Vroom, V.H. (1964) *Work and motivation*. 1st edn. New York: NY: John Wiley.

Wagner III, J.A. (1994) 'Participation's effects on performance and satisfaction: a reconsideration of research evidence', *Academy of Management Review*, 19(2), pp. 312-330.

Waterhouse, J.H. and Tiessen, P. (1978) 'A contingency framework for management accounting systems research', *Accounting, Organizations and Society*, 3(1), pp. 65-76.

WB (2006) *Overview of the Capital Markets in Vietnam and Directions for Development*. World Bank.

WB (2015) '<http://data.worldbank.org/country/vietnam>'. World Bank.

Webb, R.A. (2004) 'Managers' Commitment to the Goals Contained in a Strategic Performance Measurement System\*', *Contemporary Accounting Research*, 21(4), pp. 925-958.

Wickramasinghe, D. and Alawattage, C. (2007) *Management Accounting Change: Approaches and Perspectives*. Routledge.

Williams, J.J., Macintosh, N.B. and Moore, J.C. (1990) 'Budget-related behavior in public sector organizations: Some empirical evidence', *Accounting, Organizations and Society*, 15(3), pp. 221-246.

Williams, J.J. and Seaman, A.E. (2001) 'Predicting change in management accounting systems: national culture and industry effects', *Accounting, Organizations and Society*, 26(4-5), pp. 443-460.

Wong-On-Wing, B., Guo, L. and Lui, G. (2010) 'Intrinsic and Extrinsic Motivation and Participation in Budgeting: Antecedents and Consequences', *Behavioral Research in Accounting*, 22(2), pp. 133-153.

Woodside, A.B. (1971) *Vietnam and the Chinese Model: a comparative Study of Vietnam and Chinese Government in the First Half of the Nineteenth Century* Cambridge: Harvard University Press.

Woodward, J. (1965) *Industrial organization: theory and practice*. London: Oxford University Press.

Yao, S. (1997) 'Profit Sharing, Bonus Payment, and Productivity: A Case Study of Chinese State-Owned Enterprises', *Journal of Comparative Economics*, 24(3), pp. 281-296.

Yee, R.W.Y., Yeung, A.C.L. and Cheng, T.C.E. (2008) 'The impact of employee satisfaction on quality and profitability in high-contact service industries', *Journal of Operations Management*, 26(5), pp. 651-668.

Yin, R.K. (1989) *Case Study Research: Design and Method*. rev.edn edn. Newbury Park, CA: Sage.

Yin, R.K. (2009) *Case Study Research: Design and Methods*. 4th edn. Sage Publications, Inc.

Ying, Z., NGan, C., Michael, W. and John, B. (2008) 'New forms of ownership and human resource practices in Vietnam', *Human resource management*, 47(1), pp. 157-175.

Zanini, M.T.F. and Migueles, C.P. (2013) 'Trust as an element of informal coordination and its relationship with organizational performance', *Economia*, 14(2), pp. 77-87.

Zannetos, Z.S. (1965) 'On the theory of divisional structures: some aspects of centralization and decentralisation of control and decision making', *Management Science*, 12(4), pp. B-49-B-68.

