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The significant of business strategy in improving organizational performance

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The significant of business strategy in improving organizational performance

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Abstract

Purpose – This research aims to investigate the extent to which business strategy mediates the relationship between reliance on integrative strategic performance measurement (RISPM) and organisational performance.

Design/methodology/approach – A self-administered survey of 157 managers in Indonesian financial institutions was used to test direct and indirect effects among the hypothesised variables.

Findings – The findings indicate that business strategy has a full mediating effect on the relationship between RISPM and organisational performance.

Originality/value – This study indicates that performance measurement systems should be designed in conjunction with business strategies to obtain superior performance. More specifically, in the Indonesian financial institutions, applying a differentiation strategy is found to be most effective in gaining competitive advantage and superior performance.

Keywords Indonesia, Firm performance, Business strategy, Service sector, Financial institutions, Strategic performance measurement

Paper type Research paper

1. Introduction

Increasingly, management control systems research has shown the benefits of a strategic performance measurement system (SPMS) in preference to solely an accounting measurement system (Ittner *et al.*, 2003). However, research on the usefulness of an SPMS, particularly the balanced scorecard, provides conflicting results. Whereas Hoque and James (2000) demonstrated that an SPMS has a positive association with organisational performance, the results of Ittner *et al.*'s (2003) study were conflicting. Neely and Bourne (2000) showed that the failure rate of the implementation of integrative strategic performance measurement systems (ISPMSs), such as the balanced scorecard, was as high as 70 per cent. We are particularly interested in the extent to which more strategic measurement systems can impact on strategic choice. Thus, the aim of this study is to clarify the extent to which reliance on integrative strategic performance measurement (RISPM) can yield incremental performance through choosing both low-cost and differentiation business strategies.



It is commonly agreed that firm performance can be successfully enhanced if an organisation can align business strategies and performance measurement (Lee and Yang, 2011). Furthermore, strategic performance measurement that both integrates with strategic and operational activities (Chenhall, 2005; Kaplan and Norton, 1996b) and covers the behavioural aspects of employees enables improved performance. Dunk (2003, pp. 793-794) explains the importance of the behavioural impacts on employees of measurement systems: “managing behaviour is a crucial issue in organisations [...] to identify the array of factors that influence behaviour [*employee*] and in turn, impact on performance”. It is thought crucial to consider the behavioural aspects of employees in performance measurement to be able to successfully implement it (de Waal, 2003; Elzinga *et al.*, 2009) and achieving higher performance. Finally, de Waal (2010) and de Waal and Counet (2009) noted that organisations should consider an equal balance of the use of performance measurement instruments and behavioural aspects to improve performance.

We propose that RISPM influences business strategy and hence organisational performance. First, to achieve and enhance organisational performance, it is argued that an organisation should design and develop business strategies that are continuously monitored to ensure their attainment, through formal systems – the performance measurement systems (PMS) (Atkinson *et al.*, 1997; Van der Stede *et al.*, 2006; Wouters and Sportel, 2005; Cadez and Guilding, 2008). Additionally, scholars suggest the linkages between PMS and business strategy are imperative, as PMS provide information to achieve the organisational goals and objectives (Franco-Santos *et al.*, 2007; Li *et al.*, 2009; Merchant, 2006; Olsen *et al.*, 2007; Wouters and Sportel, 2005; Kaplan and Norton, 2008; Hall, 2008; Chenhall, 2005). Thus, it is proposed that an indirect effect on organisational performance of the use on PMSs can be achieved through business strategy.

As pointed out earlier, although we use the same data as Yuliansyah *et al.* (2016), we developed a measure of strategic performance measures that is based on a system of strategy and operational linkages, as well as covering behavioural aspects of employees, and named this RISPM. Thus, the focus of the study is: *To what extent does RISPM affect firm performance through business strategy?* To explore the question a survey was administered to managers working in the headquarters of Indonesian financial institutions.

The remainder of the paper is organised as follows. Section 2 outlines the literature review and develops hypotheses about the correlation among RISPM, business strategy and organisational performance. Section 3 explicates the research methods including data collection and variable measurements. Section 4 reports the results of Partial Least Squares (PLS) analysis of the study. The final section discusses the findings and the limitations and provides suggestions for further research.

2. Literature review and development of hypotheses

2.1 Reliance on integrative strategic performance measurement

Our measure was generated from the combination of reliance on accounting performance measures (RAPM) and recent theories of ISPM.

Although Otley (1978) found a positive behavioural effect for RAPM, numerous authors claimed that the use of financial performance indicators is not useful for employees (Davis and Albright, 2004; Ittner and Larcker, 1998) and may even have a dysfunctional effect on them (Hopwood, 1972; Argyris, 1952). Likewise, Vagneur and Peiperl (2000, p. 512) contend that reliance on budget control leads to “higher level of data manipulation, distrust, rivalry and dysfunctional decision making *vis-à-vis* cost, customer service and innovation”.

Stemming from this notion, many scholars propose a multiple performance measurement that integrates business and strategic activities with the balanced scorecard (Kaplan and

Norton, 1992). However, the implementation of ISPM does not guarantee improved performance and the research shows mixed results (Cohen *et al.*, 2008; Davis and Albright, 2004; Ittner *et al.*, 2003; Malina and Selto, 2001)[1].

The most obvious problems in implementing PMS relate to the human aspects of operating measurement systems (Fornell and Bookstein, 1982; Lee, 2001; Mahmood *et al.*, 2004). When ISPM is not aligned to employee benefits and rewards, employees have low motivation to execute organisational strategies (Sholihin *et al.*, 2010). Wong-On-Wing *et al.* (2007) showed that the implementation of BSC may be unable to reduce bias, which may lead to conflict between top management and lower level managers.

Norreklit (2000) suggested that once a PMS has been formulated, it is important to have a strategic dialogue to bridge differences of perceptions and actions among people throughout an organisation and to improve the sense of awareness. This might improve the internal commitment of individuals to achieve their goals, which will in turn contribute to the overall organisational objectives. It is imperative to make employees, as the assessors of strategy, aware of organisational strategies and understand the link between operational improvements and organisational objectives (de Waal, 2010; de Waal and Counet, 2009; Elzinga *et al.*, 2009).

These prior studies suggest that strategic performance measures that integrate with employee dimensions can improve the behaviour of an organisation's employees. Additionally, they will enhance employees' motivation to achieve their individual goals that support to the attainment of the overall organisational objectives (Hall, 2008; Kaplan and Norton, 1992). Based on this argument, we develop ISPM that is reliant not only on linkages that are strategic and operational but also on linkages that can be shown to improve aspects of employees' behaviour that contribute to achieving desired organisational outcomes. The advantages of RISPM are to remove the effect of RAPM to stimulate dysfunctional behaviour (Hopwood, 1972); to accommodate the internal process of human elements so as to successfully achieve organisational objectives; and to deploy strategy and connect operational action based on the strategic objectives that can be found in the characteristics of ISPM (Chenhall, 2005; Kaplan and Norton, 1992, 1996b; Otley, 1999; Wouters and Sportel, 2005).

2.2 Hypothesis development

Before we propose the hypotheses, it is worth summarising the theoretical framework. As explained, a priori, the primary aim of the study is to test whether or not RISPM can improve firm performance through business strategy. From this study, we suggest that business strategy can play a mediating role in improving firm performance through RISPM. Thus, we formalise the framework as shown in Figure 1.

2.2.1 *The relationship between reliance on integrative strategic performance measurement and business strategy.* Integrative SPM should be linked with business strategy to achieve competitive advantage (Widener, 2004; Simons, 1990; Kaplan and Norton, 1992; Hyvönen, 2007) and, therefore, should be designed according to business

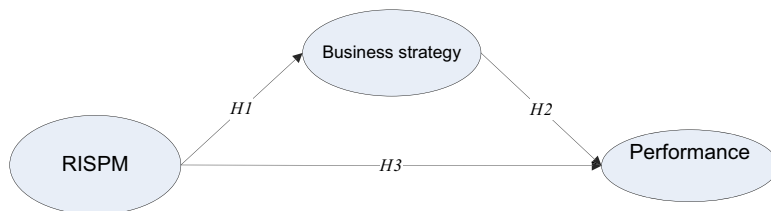


Figure 1.
A structural model testing the effect of RISPM on organisational performance

strategies (Adler, 2011; Chenhall, 2003). Thus, organisations that pursue, for instance, low-cost strategy will focus more on using tight controls of financial performance indicators (Govindarajan, 1988; Lillis and Veen-Dirks, 2008). Sandelin (2008) recommended that process efficiency is more effective for those organisations that want to be low-cost leaders. In contrast, those seeking a differentiation strategy would rely more on qualitative or non-financial performance indicators than on financial measures (Sandino, 2007; Balsam *et al.*, 2011; Lillis and Veen-Dirks, 2008; Perera *et al.*, 1997).

With significant growth in technology and knowledge, organisations may try to pursue both strategies to achieve sustainable competitive advantage and gain higher performance. It is suggested that broader aspects of measurement are required to achieve these goals and multiple performance indicators are appropriate to achieve these objectives (Blankson and Crawford, 2012; Lillis and Veen-Dirks, 2008; Chenhall, 2005; Huang, 2008). For instance, a study carried out by Chenhall (2005) in the manufacturing industry demonstrated that ISPM has a positive effect on those strategies. Similarly, Huang (2008) used the balanced scorecard to examine its effect on business strategy positions in the service sector; ISPMs are a positively associated with low-cost and differentiation strategies.

RISPM has a positive relationship with business strategy, as it enables the capture of broader information about a firm's business strategy. Additionally, as explained earlier, RISPM was developed according to the business strategy. A function of ISPM is to "clarify and translate vision and strategy; communicate and link strategic objectives and measures; plan, set targets, and align strategic initiatives; and enhance strategic feedback and learning" (Kaplan and Norton, 1996a, p. 10). Thus, there are tight linkages between RISPM and business strategy, as RISPM is used to ensure business strategy has been achieved as planned and detect problems in relation to the attainment of business strategy so the organisation can continuously improve its performance (Grafton *et al.*, 2010; Olsen *et al.*, 2007).

Based on these analogies, we propose *H1*:

H1. There is a positive relationship between reliance on integrative strategic performance measurement and business strategy.

2.2.2 The relationship between business strategy and organisational performance. The main objective of strategy is to increase organisational performance (Zott and Amit, 2008). Intense competition motivates organisations to seek competitive advantage and so at some level they consciously identify and proactively formulate their objectives before they make decisions and implement any action (Bhimani and Langfield-Smith, 2007). Prior studies by Spanos *et al.* (2004), Kim *et al.* (2004) and Parnell (2010) have found that business strategy has a positive effect on organisational performance. Therefore, in the context of this research, we retest a hypothesis that is understood in the literature:

H2. There is a positive relationship between business strategy and organisational performance.

2.2.3 The relationship between reliance on integrative strategic performance measurement and organisational performance. Despite differing results for ISPM, we assume that RISPM has a positive effect on organisational performance. One of the obvious characteristic of a PMS is that it enables us to provide information about attainment of performance in relation to the strategic plan, as well as to detect and reinforce the problems that exist in the attainment process. An example of a PMS that links to business strategy is the balanced scorecard. Despite its limitations, there is evidence that the use of a balanced scorecard is positively associated with organisational performance (Hoque and James, 2000; Davis and

Albright, 2004). Similarly, Van der Stede *et al.* (2006) found that a broader performance measure can improve firm performance. This leads to the following hypothesis:

- H3. There is a positive relationship between reliance on integrative strategic performance measurement and firm performance.

3. Research method

3.1 Data collection

We used the survey method to test our hypotheses. Indonesia was used because many studies have been conducted in western and North American countries, but limited studies have been conducted in developing countries like Indonesia (Hussain and Hoque, 2002). Scapens and Bromwich (2010) pointed out that very few studies in management accounting were conducted in the context of Asian countries, only 4 per cent of 205 studies. Financial institutions were chosen for this study because “field research on performance measurement innovations indicates that financial service firms are actively debating their choice of value drives and performance measures” (Ittner *et al.*, 2003, p. 722).

For that reason, this study used a stratified sample of managers working in private and government-owned Indonesian financial institutions. Managers targeted were of those in the banking, financial and insurance sectors, mostly located in Jakarta, the capital city of Indonesia. Information on Indonesian financial institutions, including their addresses and contact person, came from the website of the Indonesian Capital Market Supervisory Agency and the Bank of Indonesia’s website.

Prior to the questionnaires being distributed, we conducted three pilot studies. The first two pilot studies sought to reduce response bias and improve response rates by identifying improvements to content, format, terminology and ease of answering and ways to reduce bias or misunderstanding. The first pilot study, involving three PhD students, sought feedback on the questionnaire for new-instrument development and formatting to ensure it was readable and understandable. The second pilot study, the questionnaire translated into Bahasa Indonesia, was distributed to ten Indonesian PhD students in many fields to ensure that the translation did not change the meaning of the content of the original questionnaire, and they had a good understanding of each question. The third pilot study used a web-based survey instrument, Survey Monkey, to collect data through employees working in the financial sector in Indonesia, using the translated version. In the pilot study phase, there were 28 responses. After these three pilot studies, revisions were made. They were found to be satisfactory and improved reliability and validity.

Because of previous low survey response rates in Indonesia, we followed best practice, including the quality of the cover letter and questionnaire design and layout and practical strategies such as pre-notification and follow-up. We received 176 responses from a distribution of 710 questionnaires to 355 companies, with 157 usable responses (22.11 per cent), similar to Henri (2006b) and Hall (2008). The demographic information is presented in Table I.

3.2 Variable measurement

3.2.1 *Reliance on integrative strategic performance measurement.* RISPMM was developed by conducting semi-structured interview studies of 14 senior bankers in the Indonesian banking sector and comparing this with existing theory. After the pilot studies, we generated a 13-item construct for RISPMM, with each item named RISPMM1, RISPMM2 and so on. Three items were taken from Chenhall (2005) which had been adopted by Hall (2008) for his comprehensive PMS variable. Other variables relate to operation and strategy linkages (Franco-Santos *et al.*, 2007; Li *et al.*, 2009; Kaplan and Norton, 1996c; Kaplan and

	<i>n</i>	Cumulative	(%)	Cumulative (%)	The significant of business strategy	
<i>Gender</i>						
Men	94	94	59.9	59.1	61	
Women	63	157	40.1	100		
<i>Age</i>						
<35	49	49	31.2	31.2		
36-40	43	92	27.4	58.6		
41-45	36	128	22.9	81.5		
>46	29	157	18.5	100		
<i>Division</i>						
Accounting and finance	52	52	33.1	33.1		
General	24	76	15.3	48.4		
Human resources	43	119	27.4	75.4		
Marketing	15	134	9.6	85.4		
Others	23	157	14.6	100		
<i>Type of business</i>						
Banking Industry	60	60	38.2	38.2		
Financing	28	88	17.8	56.1		
Insurance	56	144	35.7	91.7		
others	13	157	8.3	100		

Table I.
Demographic
information of
respondents

Norton, 2008). The idea of RISPM from an individual aspect was gathered from interviews and supported by previous literatures, such as that supporting RISPM10 (Van der Stede *et al.*, 2006; Burney *et al.*, 2009), RISPM11 (Otley, 1999; Malina and Selto, 2004; Burney *et al.*, 2009) and RISPM13 (Lynch and Cross, 1991; Otley, 1999; Neely and Bourne, 2000). However, RISPM12 was obtained from interviews. Respondents were asked to rate how much importance was attached to each characteristic of the PMS used in their organisation, using a seven-point Likert scale anchored by 1 (not important) and 7 (very important).

3.2.2 Business strategy. An adaptation of Porter's (1980) business strategy instrument was used, as this instrument has been widely used both in accounting and management disciplines (Chenhall and Langfield-Smith, 1998, Auzair and Langfield-Smith, 2005). In this study, we utilised the instrument that was used by Auzair and Langfield-Smith (2005), a seven-point Likert scale anchored by 1 (not at all) and 7 (strongly important).

Table II presents the results of the description of variables used in the current study, containing the minimum and maximum scores, both in the predicted and the actual score, with mean and standard deviation.

Variable	<i>N</i>	Theoretical range		Actual score		Mean	SD
		Minimum	Maximum	Minimum	Maximum		
RISPM	157	1	7	1	7	5.52	1.09
Business strategy	157	1	7	1	7	5.51	1.08
Organisational performance	157	1	7	2	7	5.55	1.09

Table II.
Descriptive statistic of
the variables in the
study

Source: This demographic information is taken from Yuliansyah *et al.* (2016)

3.2.3 Organisational performance. Indicators of organisational performance were used in this study – return on assets (ROA), rate of income/revenues, return on investments (ROI) and profitability. These first three measures (ROA, rate of income and ROI) have been used in previous studies (Yee *et al.*, 2008, 2010), whereas profit has been used as an indicator in studies such as Henri (2006a), Hyvönen (2007), Spanos and Lioukas (2001), and Tippins and Sohi (2003). We asked respondents to rate their firm's performance compared to the previous year using a seven-point Likert scale ranging from 1 (far below average) to 7 (far above average).

4. Results

Before analysing the structural models, we carried out explanatory factor analysis (EFA) to establish and reduce unidimensionality of variables. As seen in Table III, the EFA test using SPSS indicates that the 13-item scale of RISPM was reduced to 2 factors. We labelled these factors “strategic and operational linkages” and “behavioural aspects of employees”. Similarly, Table III exhibits two unidimensionalities of business strategy: low-cost strategy and differentiation strategy. Organisational performance, however, is one factor only. Further detail of the EFA results can be seen in Table III.

We used PLS to test a structural equation model. First, PLS is more appropriate for data analysis in a small sample (Fornell and Bookstein, 1982; Lee, 2001; Mahmood *et al.*, 2004; Chin *et al.*, 2003), even a sample size of 50 (Cassel *et al.*, 1999, p. 443). In management

No.	Factor	Items	Factor loading	
1	Strategic and operational linkages (eigenvalue = 7.804, % variance = 60.03)	RISPM1	0.714	0.314
		RISPM2	0.798	0.284
		RISPM3	0.763	0.213
		RISPM4	0.755	0.389
		RISPM5	0.732	0.444
		RISPM6	0.761	0.358
		RISPM7	0.635	0.453
		RISPM8	0.646	0.513
2	Behavioural aspects of employee (BAE) (eigenvalue = 1.015, % variance = 67.84)	RISPM9	0.379	0.676
		RISPM10	0.310	0.804
		RISPM11	0.258	0.874
		RISPM12	0.400	0.626
		RISPM13	0.352	0.752
3	Low-cost (eigenvalue = 5.697, % of variance = 51.790)	LC1	0.138	0.878
		LC2	0.211	0.859
4	Differentiation strategy (Eigenvalue = 1.257, % of variance = 11.428)	DIFF1	0.668	0.425
		DIFF2	0.674	0.143
		DIFF3	0.790	0.023
		DIFF4	0.649	0.131
		DIFF5	0.696	0.0229
		DIFF6	0.748	0.344
		DIFF7	0.791	0.240
		DIFF8	0.788	0.097
		DIFF9	0.765	0.323
5	Organisational Performance (Eigenvalue = 3.335 per cent of variance = 83.367)	Perf1	0.883	
		Perf2	0.907	
		Perf3	0.932	
		Perf4	0.929	

Table III.
Factor loading for
RISPM, business
strategy and
organisational
performance using
SPSS 18.0

accounting literature, some scholars have applied PLS using data from a sample of less than 100 (Chenhall, 2004; Hall, 2008; Chenhall, 2005, Sholihin *et al.*, 2011a; Mahama, 2006). Notwithstanding the small sample size, we followed Cohen's (1992) suggested requirement for sample size to avoid biased results. Multiple regression analysis requires a sample size of more than 118 (4 independent variables with medium size of $f^2 = 0.15$). Hence, the statistical power of the sample size of this study meets Cohen's criterion. Second, PLS is appropriate for examining variables that have not been used in a prior study (Hulland, 1999; Ainuddin *et al.*, 2007; Smith and Langfield-Smith, 2004; Bontis *et al.*, 2002). In this study, RISPM is a self-developed variable that has not been used in previous studies. Thus, PLS was considered appropriate. Third, PLS is considered a soft modelling approach that requires less restrictive assumptions about measurement scales (Fornell and Bookstein, 1982; Lee, 2001; Mahmood *et al.*, 2004).

According to Hulland (1999), there are two sequential processes in analysing the structural equation modelling, which we discuss in the next sections.

4.1 Measurement model

The measurement model was assessed by testing individual item reliability, convergent validity and discriminant validity (Camisón and López, 2010; Hartmann and Slapničar, 2009; Hulland, 1999). Individual items were tested for reliability using Cronbach's alpha and composite reliability (internal consistency). Table IV presents Cronbach's alpha and the composite reliability ranging between 0.743 and 0.952. A rule of thumb used was that values higher than the threshold of 0.7 indicate satisfactory reliability (Hulland, 1999).

Validity was examined using PLS to test for both convergent and discriminant validity. Convergent validity (Henseler *et al.*, 2009) was tested using the average variance extracted (AVE). A sufficient convergent validity is demonstrated by the value of AVE being at least 0.5 (Henseler *et al.*, 2009). Table IV indicates adequate convergent validity, with AVE values of all variables being more than 0.5.

The AVE can also be used to examine discriminant validity. Discriminant validity can be assessed using two measures: the Fornell–Larcker measure and cross-loading. Using the Fornell–Larcker criterion, discriminant value is calculated by comparing the square root of the AVE with the latent variables correlations. Discriminant validity is adequate if the square root of the AVE along the diagonal is higher than correlations between constructs. For both rows and columns, all square roots of the AVE are higher than for the off-diagonal (Table V).

In addition, measures of discriminant validity through cross loadings suggest that all items should be greater than any other constructs (Al-Gahtani *et al.*, 2007), which is so in this case as shown in Table VI. Hence, the statistical finding of reliability and validity using PLS of each construct is adequate.

Variable	AVE	Composite reliability	Cronbach's alpha
Strategic and operational linkages	0.662	0.941	0.928
Behavioural aspect of employee	0.680	0.914	0.883
Low-cost strategy	0.796	0.886	0.743
Differentiation strategy	0.582	0.926	0.910
Organisational performance	0.833	0.952	0.933

Table IV.
AVE, composite
reliability and
Cronbach's alpha

4.2 Assessment of the structural model

In this study, the structural model was assessed by means of the R^2 for dependent variables and path coefficient tests. R^2 value above 0.1 is acceptable (Camisón and López, 2010).

According to Figure 2 the R^2 of the endogenous constructs is higher than the minimum recommended value.

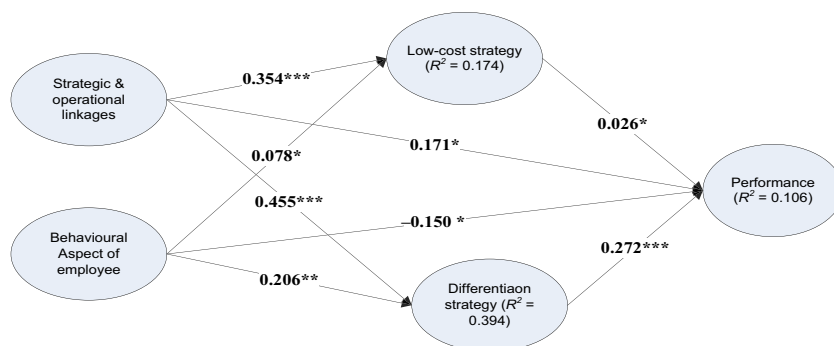
Next, the structural model is tested for the path coefficients (β) to ensure that the relationship between constructs is strong. We used a bootstrap procedure with 500 replacements (Hartmann and Slapničar, 2009, Sholihin *et al.*, 2011b) A strong relationship between constructs occurs if the path coefficient is higher than 0.100 (Urbach and Ahlemann, 2010). Further, the path coefficient is considered significant if the relationship between the

Table V.
Discriminant validity
of latent variables
correlations

	SOL	BAE	LC	Diff	OP
Strategic and operational linkages/SOL	0.814				
Behavioural aspects of employees/BAE	0.770	0.825			
Low-cost strategy	0.414	0.350	0.825		
Differentiation strategy	0.613	0.556	0.470	0.763	
Organisational performance	0.233	0.143	0.172	0.306	0.913

Table VI.
Factor loadings

	S&OL	BAE	Low-cost	Diff	Performance
S&OL1	0.766	0.584	0.279	0.475	0.191
S&OL2	0.828	0.594	0.323	0.438	0.238
S&OL3	0.746	0.540	0.326	0.379	0.244
S&OL4	0.843	0.657	0.361	0.484	0.154
S&OL5	0.861	0.686	0.384	0.537	0.142
S&OL6	0.836	0.631	0.294	0.533	0.076
S&OL7	0.807	0.639	0.377	0.559	0.264
S&OL8	0.840	0.684	0.346	0.569	0.213
BAE1	0.527	0.760	0.165	0.374	-0.037
BAE2	0.648	0.839	0.284	0.409	0.145
BAE3	0.639	0.887	0.272	0.494	0.129
BAE4	0.626	0.795	0.395	0.503	0.195
BAE5	0.647	0.840	0.277	0.482	0.098
LC1	0.358	0.296	0.897	0.388	0.207
LC2	0.381	0.331	0.887	0.452	0.098
Diff1	0.539	0.510	0.526	0.770	0.254
Diff2	0.355	0.334	0.270	0.672	0.133
Diff3	0.412	0.438	0.220	0.752	0.178
Diff4	0.469	0.373	0.287	0.652	0.096
Diff5	0.399	0.326	0.340	0.726	0.217
Diff 6	0.486	0.433	0.443	0.820	0.267
Diff7	0.449	0.460	0.379	0.831	0.316
Diff8	0.522	0.445	0.265	0.787	0.207
Diff9	0.539	0.462	0.433	0.839	0.360
OF1	0.197	0.129	0.160	0.262	0.881
OF2	0.208	0.143	0.131	0.270	0.902
OF3	0.234	0.148	0.191	0.323	0.938
OF4	0.211	0.098	0.140	0.256	0.929



Notes: ***Significant at 1 per cent; **Significant at 5 per cent; *Significant 10 per cent

The significant
of business
strategy

65

Figure 2.
PLS model with
significant path
coefficients

latent variables is at the 0.05 level (Urbach and Ahlemann, 2010). Figure 2 shows the path coefficients to be above 0.05. Thus, the structural model in this study is adequate. Overall, the measurement model and the assessment of the structural model are satisfactory. The next step is testing the hypotheses.

4.3 Tests of hypotheses

H1 examines the relationship between RISPM and business strategy (*H1*). Table VII shows that strategic and operational linkages have a positive correlation with low-cost strategy ($\beta = 0.354$, $t = 2.469$, $p < 0.01$) and a strong relationship with differentiation strategy ($\beta = 0.455$, $t = 4.678$, $p < 0.01$). In addition, behavioural aspects of employees also have no effect on low-cost strategy ($\beta = 0.078$, $t = 0.585$, $p < 0.1$) but have a positive effect on differentiation strategy ($\beta = 0.206$, $t = 1.961$, $p < 0.05$). *H1* is partly supported by these findings.

H2 proposed that business strategy is positively associated with organisational performance. The findings demonstrate that low-cost strategy has no effect on organisational performance ($\beta = 0.026$, $t = 0.300$, $p < 0.1$). In contrast, differentiation strategy has a strong positive association with organisational performance ($\beta = 0.272$, $t = 2.484$, $p < 0.01$). Thus, *H2* is partially supported.

Dependent variables	Independent variable				R^2
	Strategic and operational linkages	Behavioural aspects of employees	Low-cost strategy	Differentiation strategy	
Low-cost strategy	0.354 (2.469)***	0.078 (0.585)*			0.174
Differentiation strategy	0.455 (4.678)***	0.206 (1.961)**			0.394
Organisational performance	0.171 (1.280)*	-0.150 (1.077)*	0.026 (0.300)*	0.272 (2.484)***	0.106

Notes: *** Significant at 1 per cent (one-tailed); ** significant at 5 per cent (one-tailed); * significant at 10 per cent (one-tailed)

Table VII.
The result of PLS
structural model: Path
coefficient, t -statistics
and R^2

H3 states that there is a positive relationship between RISPМ and organisational performance. Table VII demonstrates that strategic and operational linkages have no positive effect on organisational performance ($\beta = 0.171, t = 1.280, p < 0.1$). Additionally, there is no support for a relationship between behavioural aspects of employees and organisational performance ($\beta = -0.150, t = 1.077, p < 0.1$). As result, *H3* is rejected.

Accordingly, we summarise the following hypothesis results in Table VIII.

4.4 A path analysis

A path analysis between RISPМ and organisational performance through business strategies was tested (Baron and Kenny, 1986, Alwin and Hauser, 1975). The results showed that business strategy significantly mediates the relationship between RISPМ and organisational performance (Figure 2). Neither element of RISPМ (strategic and operational linkages and behavioural aspects of employees) impacts directly on organisational performance. Rather, they impact indirectly through business strategy, in particular, differentiation strategy. Hence, the model indicates that the relationship between RISPМ and organisational performance is fully mediated by business strategy.

5. Discussion and conclusion

The primary objective of the study was to seek the effect of RISPМ on enhancing organisational performance through business strategy. This objective was inspired by previous studies, which found that implementing ISPM to gain superior performance provides mixed results. One reason, advanced by Ax and Bjornenak (2005), is that members of organisations do not have a clear idea of what they are relying on when using SPM, for example, when adopting ISPMs such as BSC. It is suggested that RISPМ links to strategic and operational activities as well as to behavioural aspects of employees and, in this way, supports business strategies that lead to competitive advantage and superior performance. Additionally, the implementation of SPM for the organisation should link employee behaviour to organisational objectives by encouraging employees to achieve their target and by motivating and guiding them to accomplish positive tasks (Lawson *et al.*, 2003; de Waal, 2003; van Veen-Dirks, 2010). Making the link between employees' activities, actions, decisions and improvement activities would lead to the achievement of organisational objectives overall (Kaplan and Norton, 1992). According to this argument, we developed ISPM that links not only to strategic and operational activities but also to behavioural aspect of employees. By establishing the reliance connection to ISPM, we arrive at RISPМ.

To attempt our objective, we first endeavoured to delineate and develop the RISPМ construct from semi-structured interviews with 14 senior bankers of 12 banks. Based on the data and comparing the result with the existing theory, we derived 13 characteristics of RISPМ. According to our interview results, we found that PMS was divided into two sub-dimensions. The first concerns strategy and its activities to ensure the achievement business strategy and, the second, motivating members of the organisation to support and

Hypothesis	Descriptions	Findings
1	There is a positive relationship between RISPМ and business strategy	Partly supported
2	There is a positive relationship between business strategy and organisational performance	Partly supported
3	There is a positive relationship between RISPМ and organisational performance	Not supported

Table VIII.

A summary of the test of hypotheses

execute the business strategy. Thus, we claimed that RISPM has two dimensions – strategic and operational linkages and behavioural aspects of employees. These dimensions were supported by statistical analysis using EFA, which suggested our 13-item scale is divided by those 2 dimensions.

Bearing in mind the aim of the study, the questionnaire was distributed to the headquarters managers working in Indonesian financial institutions, with 157 usable responses. Overall, this study found that RISPM can create superior performance only through business strategy. More specifically, superior performance and competitive advantage can be achieved when an organisation decides to pursue a differentiation strategy rather than a low-cost strategy. The findings of the study conflict with the results of the research of [Hyvönen \(2007\)](#) who found that a differentiation strategy does not improve firm performance when using contemporary performance measures. However, the results are consistent with a study of PMS in the service sector by [Amizawati et al. \(2010\)](#). Further, the findings of [Amizawati et al. \(2010, p. 750\)](#) indicate that “differentiation strategy is the most prominent factor that influences the design of PMS”. They found that an appropriate business strategy that focuses on differentiation strategy is required to sustain competitive advantage and superior performance ([van Veen-Dirks, 2010; Hoque, 2004](#)). In addition, the use of non-financial performance measures is more likely to provide results that leverage the organisational ability to achieve a differentiation strategy.

One of the RISPM dimensions – behavioural aspects of employees – enhances business performance through a differentiation strategy, indicating that it is imperative to include human aspects to motivate employees to work better. The statistical results suggest that because employees are motivated to work better they can provide high quality service to customers. Providing high service quality will impact on customer retention and improve firm performance. This supports the evidence that service supply chains creating internal service quality are an antecedent to firm performance ([Schlesinger and Heskett, 1991; Heskett et al., 2008](#)). It means that because an organisation can improve aspects of employee behaviour, it is possible to improve internal service quality throughout the organisation. Furthermore, it is noted that improvement in service quality is closer to a differentiation strategy ([Heineke and Davis, 2007](#)) than to a low-cost strategy.

This study seeks to contribute in several ways. First, it enriches the literature about SPMS, especially that which focuses on its characteristics rather than particular measures ([Chenhall, 2005; Hall, 2011; Burney et al., 2009; Hall, 2008](#)). [Chenhall \(2005\)](#) suggests a fruitful avenue for research in the characteristics of SPMS in the manufacturing sector, namely, ISPMS. He claimed that an SPMS is a critical measure that comprises three aspects: strategic and operational linkages, customers and supplier indicators. [Burney et al. \(2009\)](#) claimed that SPMS was characterised by two aspects: the degree of technical validity and a strategic causal model. This study contributes to the broader understanding of the dimensions of SPMS through analysis of interviews of Indonesian senior bankers and then by comparing with the literature. There are two dimensions to reliance characteristics: strategic and operational linkages and behavioural aspects of employees. We argue that for a PMS to be useful, it is important that it links to behavioural aspects of employees as well as to strategic and operational activities. As [Neely and Bourne \(2000\)](#) highlight in their success map, the employee has an important role in achieving the efficiency strategic goals. Thus, it is expected that if the PMS is linked to employee aspects, it can stimulate the achievement of strategic outcomes that lead to an increase in firm performance.

The second contribution relates to the research framework. This study contributes to the existing literature about the use of ISPMS and its impact on organisational performance through business strategy. [Lee and Yang \(2011, p. 101\)](#) claim that “firms can pursue a competitive

advantage based on high quality, high technology and low cost relative to competitors". They go on to suggest that "future research could examine the relationship between particular competitive types (e.g. quality, technology and cost) and the use of PMS" (Lee and Yang, 2011, p. 101). Thus, this study will shed a new light on how the use of PMS can link to a particular strategic type to enhance firm performance. Previously, we have noted the debate about the usefulness of the linkages between strategy measures and business strategy in enhancing organisational performance. Hyvönen (2007) noted the importance of tailoring management control systems to support business strategies to pursue competitive advantage and improve organisational performance. However, empirical findings such as those reported by Verbeeten and Boons (2009, p. 126) show the reverse, claiming that "the empirical results for the alignment hypotheses suggest that aligning the performance measures to the strategic priorities of the firm does not increase performance". Thus, this study adds to knowledge of how strategic performance measurement, business strategy and organisational performance are intertwined.

We highlight three limitations of the study. First, the choice of the financial sector limits application of the results to other sectors. There may well be different strategy patterns across sectors. For example, the banking sector is highly competitive and oriented to long-term customer relationships where differentiation may be very common. Extending this to mass production manufacturing or capital-oriented service businesses such as hotels or the airways industries is problematic.

Second, we used a novel variable, RISPM, which was developed through a literature-based study and semi-structured interviews[2]. In the development of the study, we adopted Creswell's (2003) method, using semi-structured interviews with senior bankers to take "snapshot pictures" about characteristics of PMS in practice. In addition, we conducted a two-step pilot study followed by a final pilot study to test validity and reliability. Although the variable appears satisfactory in terms of reliability and validity using two statistical software tools, SPSS and PLS, further studies may extend its usefulness by refining and validating the variable. Overall, the development of RISPM as a variable was derived from interviews with only 14 senior bankers of twelve banks.

Apart from these limitations, RISPM is a key concept in helping an organisation achieve its goals. It can integrate strategic and operational objectives at an organisational level and at an individual level. Hence, managers may consider designing and implementing PMS that enable them to link and steer aspects of employee behavioural so as to reach organisational objectives. In analysing the effect of RISPM on strategic business and organisational performance, we demonstrate that there are correlations between RISPM, business and organisational performance. It means that to achieve superior performance, organisations should develop business strategy for both short- and long-term periods. Additionally, the implementation of business strategy can be achieved and evaluated if an organisation can design PMS according to business strategy. More specifically, successful implementation of integrative performance measurement should link aspects of employee behavioural to motivate them to achieve their own goals. Finally, the specific business strategy that should be pursued in Indonesian financial institutions is a differentiation strategy rather than a low-cost strategy.

Notes

1. Cohen *et al.* (2008, p. 486) comments about the balanced scorecard: "However, it has been strongly criticised and questioned for its novelty and efficiency (Chenhall, 2005; Norreklit, 2000)". They also note that "despite its global success, the BSC approach has been strongly criticised for the lack of evidence that proves its association with improvements in accounting measures' (2008, p. 487).
2. Creswell (2003) noted this method as sequential transformation and exploratory methods.

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