

An Empirical Study of Non-Financial Measures' Emphasis for the Compensation Schemes on Different Categories of Strategic Orientation in Malaysia

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Abstract

Performance management has been a contemporary topic for research. Extensive studies have concentrated on this area and claimed that non financial measures besides financial measures are the essence for today's business environment. The literature review also asserted that the business performance measurement is highly concentrated on the non-financial indicators and is worthless if not linked to a reward system. Moreover, the measures linked to a reward system, but not as per the strategic direction of the firms, will also flunk the performance measurement system. Thus, this empirical research explored the emphasis of performance measures in relation to the reward system among different categories of Malaysian firms' strategic orientation. The study was conducted during 2011, and the findings revealed that the emphasis differed among the three categories of Miles and Snow strategic orientations. The firms which adopted a prospector strategy orientation placed a greater emphasis on non-financial performance measures tied to the compensation schemes, and differed from the other two Miles and Snow strategy orientations - analyzers and defenders. On the whole, the findings concluded that when Malaysian firms adopted different categories of strategic orientations, it did have an impact on measures in relation to the compensation schemes.

Keywords: non-financial measures, financial measures, reward system, Miles and Snow strategy orientation

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In today's competitive business environment, much attention has been given to appropriate compensation schemes to motivate the employees to perform well. The greatest amount of research on rewards drives from organizational and psychological studies, which consider rewards as a motivational tool (Aureli & Salvatori, 2012). Firms traditionally determined compensation schemes using financial metrics such as net earnings, return on investment, or unit cost (Eccles, 1991 ; Ittner, Larcker, & Rajan, 1997 ; Joshi, Kumar, & Al - Ajmi, 2011). Research indicates that these kinds of financial metrics, which focus upon profit growth and are mainly used for management compensation, are not sufficient. According to Sliwka (2002), the financial indicators are lagging indicators of many aspects of organizational performance. The author further asserted that as has often been claimed in management and accounting literature and as well as in the business press, managers seem to be too short-term oriented: they neglect strategic activities and spend too much effort on improving current results. The

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efforts to improve strategic activities is measured by financial indicators and captured only after some time. This will ultimately affect compensation. Thus, to earn better compensation, a manager focuses on operational activities, which are short-term oriented and neglects strategic activities that provide for a firm's long-term growth. A similar view noted by Ittner, Larcker, and Randall (2003) is that over-reliance of financial measures as a basis of the compensation plan has been criticized for encouraging managers to sacrifice long-run performance to increase short-term financial results, thereby maximizing their bonuses. Therefore, companies prefer monetary rewards based on financial performance measures rather than on non-financial measures. Recent research by Aureli and Salvatori (2012) noted that compensation based on non-cash should be preferred to bonuses as they seem better to align managers' decisions on behaviours to long term value creation and the time horizon of risk. This provides the needs that compensation schemes should be evaluated by non-financial performance dimensions.

Moreover, research by Acharya and Richardson (2009) noted that the recent unforeseen company failures have demonstrated that traditional executive compensation structures linked to financial short term performance measures tend to push managers to choose risky strategies at the expense of long-term value creation just to achieve the given targets and maximize their associated incentives. To overcome the short-run orientation of the accounting-based reward system, firms have introduced additional measures to capture actions that are not reflected in short-term financial results. The additional measures range from quantitative to qualitative assessments such as employee and customer survey results (Banker et al., 2000 ; Ittner, Larcker, and Meyer, 2003). According to Needles et al. (2008) (as cited in Aureli & Salvatori, 2012), some researchers have already underlined the importance of incorporating non-financial indicators (related, for example, to human resource management or marketing and customer service) into the measurement systems pertaining to awarding contracts. According to the agency theory, non-financial measures should be included in management compensation contracts (subject to their costs and risks imposed on the manager), if they provide incremental information about the manager's actions beyond that conveyed by financial measures (Banker & Datar, 1989 ; Feltham & Xie, 1994 ; Holmstrom, 1979).

Research studies indicate that the evaluation of compensation using non financial measures instead of financial measures enables the alignment of managers' performance with long-term goals of the company. However, the firms need to be careful in selecting the non-financial measures, and this selection must be on the basis of certain characteristics of the organization. Empirical research indicates that the emphasis of non-financial performance measures differs according to the firms' competitive position. For instance, firms that emphasize an innovation strategy place greater emphasis on determining the manager's compensation using non-financial measures related to innovation metrics. On the other hand, firms where the emphasis is on cost control, the strategic approach will be to use different kinds of non-financial performance metrics related to cost control; nevertheless, the emphasis is on the financial performance measures. Hence, emphasis on non-financial measures will be different depending on the firms' strategy approach. The achievement of non-financial measures will then lead to the objectives of the firms' financial targets measured by the financial dimensions. The emphasis on non-financial performance measures provides a holistic approach to determine the manager's rewards, and not sacrifice initiatives for long-term benefits. The above discussion leads to the following research question, which is the focus of the present paper :

➔ Does the emphasis of non-financial performance measures in determining compensation varies according to different categories of the firms' strategy position?

The research objective is as follows :

➔ To identify the emphasis of non-financial performance measures in the compensation contract of three different categories of the Miles and Snow strategy position.

Non Financial Measures and Compensation

The potential benefits of non-financial performance measures in management accounting have been widely cited (Eccles, 1991 ; Johnson & Kaplan, 1987 ; Kaplan & Attkinson, 1989 ; Lambert & Lacker, 1987 ; Schiff & Hoffman, 1996). Literature provides a common consensus stating that non- financial metrics are the leading metrics that drive future financial objectives and measure strategic performance. Moreover, the application of non-financial measures provides sufficient information of the agent's action and hence, helps to reduce uncertainty and ,therefore, the risk premium that has to be paid to the agent (Aureli & Salvatori, 2012 ; Sliwka, 2002).

An implicit assumption is that managerial actions result in outcomes such as innovation, quality, or customer satisfaction, which in turn drive future financial performance (Hauser, Simester, & Wernerfelt, 1994 ; Kaplan & Norton, 1992). The American Accounting Association (1971) and Johnson and Kaplan (1987) supported the view that non-financial measures are believed to complement short-run financial figures as indicators of progress towards a firm's long-term goals. The financial measures only partially reflect the effects of past and current activities, whereas the non- financial leading indicators of customer satisfaction, internal process improvements, and an organization's innovation and improvement activities reflect the effect of current managerial actions that will not show up in financial performance until later (Kaplan & Norton, 1992 ; Singleton-Green, 1993). Banker, Potter, and Srinivasan (2000) supported similar views that non-financial measures are better indicators of future financial performance based on the cause-and-effect relationship. Similarly, Hemmer (1996) noted that current financial measures do not reflect the value of these long-term-oriented managerial actions; therefore, non-financial performance measures are useful to help refocus managers on the long-term aspects of their actions. Several researchers have highlighted the fact that increasingly, organization-designed reward system is based on non-financial achievements. On this note, examples of companies that include non-financial measures are as follows: Chrysler Corporation paid bonuses to its top 200 executives based on the attainment of vehicle quality and customer satisfaction targets in addition to measures of profitability. Ford Motor Company announced an executive compensation plan similar to the plans used by General Motors and Chrysler that included non financial customer satisfaction and operation measures (Banker et al., 2000).

On the whole, past empirical studies have concluded that a performance control system that consists of non-financial measures in determining the management compensation is a strong motivational driver for managerial performance. Furthermore, according to Ittner et al. (1997), the non-financial performance measures provide incremental information on managerial activities that shareholders aim to achieve. This is explained in the agency theory: A point to note is that the economic-based agency models state that the role of performance measures is to align the agents' goals with those of the principal, and the measures should be a function of the informativeness (or incremental information content of each measure regarding the worker's action choices (Banker & Datar, 1989 ; Feltham & Xie, 1994 ; Hemmer, 1996 ; Ittner, Larcker, & Meyer, 2003).

Similar views noted by Feltham and Xie (1994) , Hemmer (1996), and Joseph, Babin, Money, and Samouel (2003) state that the financial measures of performance may be imperfect and may be noisy signals of the manager's efforts, and non-financial measures can add value by inducing long-run focused effort . When non-financial measures are included in the reward system, managers align their efforts more closely along the dimensions emphasized by those measures, resulting in improvements in performance (Banker et al., 2000). This view is supported by the performance measurement literature, which states that the integration of non-financial measures in measurement systems allows managers to better understand the relationship among various strategic objectives to communicate the association between employees' actions and strategic goals, and to allocate resources and set priorities based on those objectives (Kaplan & Norton, 1996a).

Incorporating non-financial instead of financial measures in a firm's performance measurement system may also provide more direct and timely feedback on managerial efforts in some environments (Barua, Kriebel, & Mukhopadhyay, 1995). Furthermore, non-financial measures are contemporaneously available for purposes of evaluating the impact of current efforts. This affords the manager an opportunity to take immediate corrective

action, and the non-financial measures are less subject to manipulation since they are typically less dependent on managerial judgment than are cost allocations or balance sheet valuations (Rees & Sutchliffe, 1994).

Although empirical findings support the inclusion of non-financial measures for rewarding managers, some researchers have concluded that there is no positive association between the compensation plans and non-financial metrics (Ittner & Lacker, 1998). For instance, Ittner, Larcker, and Randall (2003) examined how different types of performance measures (e.g. financial versus non financial, quantitative versus qualitative, divers versus results) were weighted in a subjective balanced scorecard bonus plan adopted by major financial services firms. The authors asserted that linking the balanced scorecard to performance evaluation and compensation does not improve the system. Moreover, their research findings revealed that the high level of subjectivity in the balanced scorecard plan led many branch managers to complain about favoritism in bonus awards and uncertainty in the criteria being used to determine rewards. Hence, the system ultimately was abandoned in favor of a formulaic bonus plan based solely on revenues. Despite the finding of no positive correlation between the compensation plan and non-financial metrics, there is significant evidence as provided by empirical research (Banker et al., 2002 ; Ittner et al., 1997 ; Rees & Sutchliffe, 1994) on the importance of the non-financial metrics link to reward systems.

Non-Financial Measures and Competitive Position

Studies conducted on the relationship among performance measures, compensation plan, and organization strategy by Govindarajan and Gupta (1985) and Simons (1987) stated that the performance measures used in a reward system should be closely linked to the organization's strategy to ensure that the managers' incentives are aligned with the company's goals (Ittner et al., 1997). This finding is supported by the agency theory that there should a meaningful, objective link between the compensation and the manager's contribution to the firm's strategy direction (Baum, Sarver, & Strickland, 2004). Research by Ittner et al. (1997) was done on firms which had adopted different categories of Miles and Snow strategy typology emphasis on non financial metrics. The research using cross-sectional latent variable regression analysis of data from 317 firms provided the following results : Relative weight placed on non-financial measures was greater in firms following an innovation-oriented “prospector” strategy than in firms following a cost leader or “defender” strategy. Firms that had adopted quality-oriented strategies also placed more weight on non-financial measures, as did utilities and telecommunications firms, many of which face regulatory and competitive pressures to improve non-financial dimensions such as safety and customer satisfaction. Consistent with theoretical work on the choice of performance measures, the researchers found some evidence that the use of non-financial measures is increasing making noise to be included in financial performance measures used by firms.

On the other hand, Kaplan and Norton (1996 a, b) recommended the concept of linking compensation plans to the balanced scorecard (BSC) approach, although the fundamental principle of this concept is for performance measurement and evaluation rather than for compensation. The authors reported case-study evidence on companies implementing explicit compensation schemes based on performance measures in the BSC (Kaplan & Norton, 2001). Albeit, the authors provided little guidance on this linking; they conjectured that the balanced scorecard renders the subjective reward system easier and more defensible to administer, and it was also less susceptible to game playing . However, Kaplan and Norton (1996b) warned firms that it would be problematic to ask managers to focus on BSC measures if the compensation and evaluation are based on traditional financial measures.

The usage of non- financial performance measures in the compensation contract plan is essential to capture the managerial long term actions that lead to better performance and to tackle the competitive pressures. Competitive pressures such as focusing on quality and customer responsiveness requires inclusion of subjective measures in the control system (Eccles, 1991 ; Hall, 1993). Chow and Stede (2006) argued that it is important to link the multidimensional control system such as the BSC approach which focuses on both financial and non financial

measures with compensation, although the firms may want to use the scorecard for some time before establishing the link (Lipe & Salterio, 2000).

As highlighted in the above literature, the emphasis of non-financial measures differs among different categories of strategic orientation, that is, quality, innovation, competitive pressures, and cost oriented strategic direction. Firms that are seeking innovation and quality to develop the market usually adopt a flexible structure, where the emphasis is greater on non-financial metrics and focus is on innovation (Blackmore & Nesbitt, 2009). In accordance with the Miles and Snow strategic position ; usually, these kinds of firms adopt a prospector strategic orientation, where the focus on innovation is better reflected by the non-financial metrics. Hence, it will be more significant if the reward system is based on the non-financial dimensions.

On the other hand, firms that adopt the defender strategy approach focus mainly on cost control and do not pay much attention to new products or market development (Desarbo, Benedetto, Song, & Sinha, 2005). To some extent, these firms emphasize highly on operational measurements with a view to minimize costs. Hence, the firms that adopt the defender approach mainly focus on the performance measures based on the financial measures, and therefore, the compensation is evaluated mainly on the financial dimension rather than on the non-financial dimension. On the other hand, the analyzer firms share a similar strategic orientation of prospector and defender firms and place their emphasis on both financial and non-financial measures for the reward system.

In summary, firms that adopt the prospector strategic orientation emphasize upon the non-financial dimension ; whereas, firms that adopt the defender strategic orientation emphasize upon the financial dimension. For the analyzer firms, the emphasis is on both. The emphasis of performance measures on the basis of different strategic orientations is ultimately linked to a firm's reward system. This influences the managers to increase their efforts towards the firm's intended strategic direction. The compensation scheme is used as a yardstick for achieving the performance target. However, the performance measures are in line with a firm's strategic orientation.

Research Hypotheses and Methodology

The discussion of previous research studies (conducted in this area) and theory indicate that the performance measurement control system that consists of non-financial metrics provides an appropriate reward system for agents. This is necessary, especially in today's business context, where the agents' performance of multiple tasks is not captured by the financial dimensions alone. Researchers have argued that the financial performance measures past performance, and the non-financial performance measures may reflect actions that lead to future performance. Hence, the non-financial performance measures in the compensation contract are necessary to capture managerial performance that leads to better performance neglected by financial measures.

As discussed above, the emphasis on non- financial performance measures differs in accordance with the firms' strategy adoption. Firms that emphasize upon innovation and quality focus more on non-financial evaluation matrix for their reward system ; whereas, a firm that focuses on cost control emphasizes upon the financial matrix. Hence, the emphasis differs between the strategic orientations. The hypotheses, as indicated below, will examine whether Malaysian firms' emphasis on non-financial measures in the reward system differs among the three different categories of Miles and Snow strategy, that is, prospector, defender, and analyzer.

➔ **Ho** : The reward system that emphasizes on non-financial measures differs among the three categories of Miles and Snow strategy typology.

➔ **Ha** : The reward system that emphasizes on non-financial measures does not differ among the three categories of Miles and Snow strategy typology.

This research study empirically explores the emphasis of the non-financial measures for reward purposes in Malaysia. This study is quantitative or positivist in nature (Hussey & Hussey, 1997) and uses quantitative survey. Researchers have argued that a survey is a positivistic methodology, whereby the sample of subjects is drawn from a population and studied to make inferences about the population. Thus, a quantitative survey questionnaire was

designed to examine the identified variables in relation to non-financial measures in compensation and its association to the competitive position of the firm.

The questionnaire was designed based on the literature review and also from the empirical research of previous studies, for instance, from Conant, Mokwa, and Varadarajan (1990), who analyzed the Miles and Snow strategy typologies. A point to note is that some of the questions and instruments were modified and simplified to suit the current business environment, but still retained the concept. To test whether the firms were using a mixture of financial and non-financial measures in their reward systems, a new instrument was developed based on the literature review. A total of 11 questions were developed related to the compensation contract. As for each statement in comparison to its competitor, the respondents were required to select from the 5- point Likert's scale, whereby 1 referred to "*strongly disagree*" and 5 referred to "*strongly agree*". This instrument was pre-tested to determine the content validity and reliability to ensure it tested the required objectives. The reliability test using Cronbach's alpha coefficient indicated that the instrument was above 80%.

The focus of this study is on manufacturing firms operating in Malaysia and established at least for not less than 5 years. It included manufacturing firms in different business sectors. For the purpose of this study, the manufacturing firms in Malaysia were narrowed into six categories, i.e. (a) agriculture products, (b) manufacturing products (this included food, mineral, furniture, iron & steel products, paper, rubber, souvenirs, sport, textiles, toys, wood projects), (c) electronic and electrical products, (d) chemical products, (e) infrastructure products, and (f) medical products. Based on a search of the web-based manufacturers's directory and by also searching the Federation of Malaysian Manufacturers, Malaysia industries directory, a sample size of 1000 manufacturing companies was identified. The automatic random 'sampling' function within the 'data analysis' option of the Microsoft Excel spreadsheet was used to select approximately 80% of these identified manufacturing companies. The target participants were middle management. They were identified with a different variety of labels, that is, lower level managers, unit managers, company managers, sector managers, group managers, division managers, or area managers (Otley, 1994).

The target group of middle management was selected because they were responsible for the sub-unit performance within an organization and were also able to provide accurate answers to all questions in the questionnaire. Although the focus of this study was middle management, it was considered appropriate to get the senior management involved by getting their approval. This was necessary as the senior management of any organization was more familiar with the identified organization member relevant for this study. Once the data was classified for the compensation contract plan and established, the emphasis of non-financial performance measures at different categories of the Miles and Snow strategy typology was tested using the "Independent Sample *t*" test. The hypothesis was tested at 95% level of confidence, and the significant (2 tailed) level was examined. At the same time, the mean score was also examined to analyze the hypothesis.

Analysis and Results

A total of 900 questionnaires were distributed to manufacturing firms located across Malaysia. The areas covered were Penang, Selangor, and Johor in Peninsular Malaysia. The total questionnaires returned were 274 out of a sample of 900. Of these, only 253 questionnaires were useful as they had less than 10% of the missing data ; 21 questionnaires (8%) were spoiled due to huge missing data, which were related to important research variables. The final sample size of 253 out of the total 900 represents a 28% response rate, higher than the 20% target sample size that was determined prior to the study. The study was conducted from January till June 2011.

As indicated in the reliability analysis in Table 1, both variables are above the recommended value. Nunnally and Berstein (1994) suggested that values above 0.70 are an acceptable reliability coefficient level. This is also supported by Sekaran (2003) that as long as the Cronbach's alpha measure is above 0.70, it can be said that the instrument has an internal consistency reliability. According to Yockey (2011), the coefficient alphas's range from 0.70 to 0.79 is fair, 0.80 to 0.89 is good, and above 0.90 is excellent. Based on Yockey's coefficient alphas, the

Table 1. Exogenous Standardized Regression Weights

Manifest Variables	Coding	Regression Weights
Competitive Position		
Product- oriented and market- oriented structure	CP57	0.871
Decentralized and involvement in decision making	CP58	0.870
Consistently identifying opportunities	CP56	0.862
Resources available and accessible	CP52	0.850
Aggressively enter into new markets	CP51	0.844
Competencies are broad and entrepreneurial	CP53	0.840
Concentrating on expanding into new markets	CP55	0.839
Consistently develop new products	CP54	0.788
Innovative and continuously changing	CP48	0.746
Monitoring changes and trends in the marketplace	CP50	0.726
Reputation for being innovative and creative	CP49	0.724
Overall Coefficients of Determination		67%
Cronbach' s Alpha		0.96
Reward System		
Non-financial measures capture business unit actions and contributions	Q12.99	0.777
Performance related pay schemes are based on non-financial measures	Q12.97	0.791
Non-financial and financial measures are efficient means to motivate managers	Q12.98	0.809
Reward based on non financial metrics	Q12.93	0.818
Non-financial measures encourage long-run performance goals	Q12.95	0.871
Non-financial measures to overcome short-run orientation	Q12.96	0.881
Performance evaluation is based on multiple non-financial measures	Q12.94	0.883
Overall Coefficients of Determination		70%
Cronbach' s Alpha		0.94

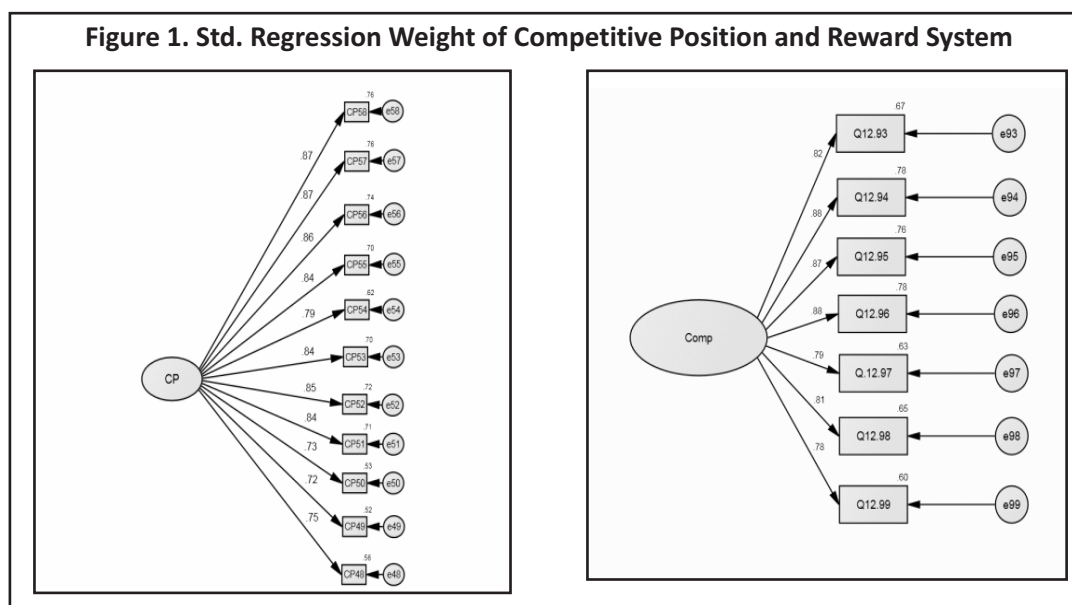


Table 2. Difference in Compensation Contract and Competitive Position

	Mean Difference	df	Std. Error Difference	t	Sig. (2-tailed)
Prospectors and Analyzers	0.389	227	0.104	3.732	.000
Analyzers and Defenders	0.309	81	0.186	1.657	.101
Prospectors and Defenders	0.698	192	0.142	4.896	.000

Table 3. Emphasis of Performance Measures

	Prospectors	Analyzers	Defenders
Compensation Contract			
Mean	4.406	4.017	3.708
Std. Deviation	0.648	0.799	0.690
Std. Error Mean	0.050	0.104	0.141

Compensation Measures consists of seven variables, and the Cronbach's alpha was 94%. Whereas, the firms' business strategy was evaluated using the Miles and Snow strategy consisting of 11 questions on three categories of strategy orientation, that is, prospectors, defenders, and analyzers, the coefficient alpha is 0.96 (above the excellent threshold). The reliability test of Cronbach's alpha coefficients revealed that all the variables were reliable and the instrument had measured the intended research objective. Thus, data collected based on each question of the research instruments were qualified for statistical analysis. Besides the reliability test, the convergent validity was also tested using the SEM specific approach of confirmatory factor analysis to analyze the manifest variables of each latent variable (research instrument). The preferable factor loading value of 0.7 of each manifest variable was recommended, and the overall variance extracted (VE) of each latent variable was also calculated. According to Hair, Black, Babin, Anderson, and Tatham (2006), a VE of 0.5 or higher is a good rule of thumb, suggesting adequate convergence.

The Figure 1 provides the confirmatory factor analysis (CFA) diagram of the two endogenous variables – Competitive Position and Compensation. The analysis of the manifest variable standardized regression weight for both latent variables is provided in the Table 1. The analysis indicates that all are above the recommended value of 0.7. The manifest variables that recorded the highest standardized regression weight for Competitive Position, 'product-oriented and market- oriented structure' is 0.871 and the lowest regression weight is recorded for the manifest variable - 'reputation for being innovative and creative' - that is, 0.724.

For Compensation, the highest manifest variable, 'performance evaluation based on multiple non-financial measures' (Q12.94) is 0.883, and the lowest, 'non-financial capture business unit actions and contributions' (Q12.99), is 0.777. Therefore, the CFA concludes that the value of the manifest variables above 70% indicates that each of these manifest variables measured the respective latent variables. In addition, the variance extracted (VE) values of respective latent variables are presented in each table of standardized regression weight, and are indicated as overall coefficients of determination. The two latent variables recorded a VE value of above 0.5, that is, for Competitive Position, the value is 67% and for Reward System, the value is 70%. The VE values of these two dimensions indicate that the manifest variables measuring each research variable do not pose any severe problems with regards to the convergent validity. Thus, on the whole, the data is qualified to measure the research hypothesis.

As discussed in the literature, the emphasis of performance measures for the purpose of a reward system differs among the three categories of Miles and Snow strategy. The independent *t* - test as shown in the Table 2 provides statistical evidence that the emphasis among these three different strategy orientations differs, except the emphasis between analyzers and defenders, which is not significant. This is because the analyzers and defenders share certain similar characteristics of strategic orientation. However, this study focuses on whether there is a difference of emphasis between the prospectors and analyzers as well as between prospectors and defenders. This is because there is a distinctive difference of performance measures emphasis between the prospectors and other

two Miles and Snow strategic orientations. The analysis of the results reveals that the emphasis between prospectors and analyzers as well as between prospectors and defenders differs as the analysis indicates significance at the p - value of 0.000 at 99% confidence level.

As shown in the Table 2, the t' value between prospectors and defenders is greater than it is between prospectors and analyzers. The former recorded a value of 4.896 and the latter recorded a value of 3.732. This provides clear evidence that emphasis of non-performance measures to determine the reward system between these two strategy orientations depends upon the key strategies focused upon by the firms, given the distinctive differences in strategic orientation between these two competitive positions. On the other hand, the mean values (Table 3) among the Miles and Snow strategy orientation reveal that the prospectors have the highest mean value, that is, 4.406 in comparison to the other two strategic orientations - defenders and analyzers. This provides clear evidence that the emphasis of the prospectors' strategic orientation is very much greater on the non-financial performance measures for reward systems, given the nature of this strategic orientation.

On the basis of the mean analysis as shown in the Table 3, it is evidenced that the manufacturing firms in Malaysia differed in terms of emphasis on non financial performance measures. Moreover, the emphasis is influenced by the firm's strategic orientation depending on prospectors, analyzers, or defenders. Therefore, the study supports the hypothesis, whereby the reward system's emphasis on non-financial measures differs among the three categories of Miles and Snow strategy typology. The following segment provides a detailed discussion on the differences among the three Miles and Snow strategy typologies, which emphasize upon the performance measures.

Discussion and Conclusion

The compensation contract that includes both financial and non-financial measures is necessary to provide fair compensation for staff performing multiple tasks. The financial measures alone are insufficient to measure their contributions. As such, performance measurement consists of a mixture of financial and non-financial performance measures necessary to assess all aspects of the job that contribute quantitatively and qualitatively. Many researchers support the emphasis on non-financial measures, and therefore, consider it appropriate, as the reward system is linked to the achievement of non-financial targets. On this note, the present empirical research explores whether there is a difference when Malaysian firms adopted different strategic orientations' emphasis on non-financial measures (Blackmore & Nesbitt, 2009 ; Ittner, Larcker, & Randall, 2003 ; Lo & Wang, 2007).

As seen in the Table 2, the emphasis between prospectors and defenders as well as between prospectors and analyzers is significant, and the t' score is higher for the former than for the latter. The mean analysis indicates that prospector firms' emphasis is greater than the other two Miles and Snow strategy typologies. Firms that adopt the prospector strategic orientation usually operate in very uncertain business environments, where a rapid change in technology, regulatory bodies, and particularly, changes in consumer demands and tastes are frequent. Therefore, the business growth is very much of new innovations of their product line. As a result, these firms focus highly on non-financial measures as a basis to determine rewards for managers and place less emphasis on financial measures.

As researchers have noted, the financial measures focus on short term achievements, and if the financial measures alone are used to determine the rewards for managers, firms will lose their competitiveness with other firms who aggressively compete with new product developments. The prospector firms focus their resources on entrepreneurial tasks that monitor evolving trends in the marketplace and new product development, and are led by a dominant coalition that possesses expertise in marketing and R&D (Conant et al., 1990). Hence, the compensation schemes of the prospectors' strategic orientation firms focuses on the achievement of entrepreneurial tasks measured mainly by using the non-financial measures.

Tying the rewards with financial achievement alone directs the managers' focus on increasing profit in the existing markets rather than looking into developing new markets with new ideas, and does not suit the prospectors firms' strategic direction. Furthermore, the prospectors spend considerable investment on Research

and Development (R&D), where the returns are not immediately translated into cash flow. The investment on R&D and the payback period takes some time. Thus, if managers are evaluated and rewarded on the basis of financial achievement, they will be reluctant to introduce any new products, making the prospector firms fail in the long run. Under these circumstances, the emphasis on financial measures does not fit well in rewarding managers' efforts when promoting newly developed products, whereas the non-financial measures gradually measure the managers' activities in the process of establishing the firms' newly developed services or products. They are also rewarded progressively for their achievement of non-financial goals or targets, which ultimately lead to financial achievements, providing greater compensation like bonus, share of profit, and so forth.

In view of this argument, the prospector firms are more inclined to reward manager's actions using the non-financial measures, which leads to long run achievement of financial measures. Moreover, the non-financial metrics provide timely feedback on managers' performance and help them to take necessary action to rectify errors in order to establish the firms' position. On the whole, the analysis (mean value and *t* - value) provides sufficient evidence that the number of Malaysian manufacturing firms adopting the prospector emphasis on non-financial measures is more in comparison to the other two Miles and Snow strategy orientations.

On the other hand, the mean analysis indicates that where the non-financial emphasis between defender and analyzer is concerned, the latter's strategy orientation has a greater emphasis than the former in the reward system. Firms that adopt the defender place least emphasis on the non-financial dimension in comparison to prospector and analyzer firms, mainly due to the nature of these firms' strategic orientation. The focus of the defender firms is on product efficiency, particularly the firms' high emphasis on cost control (Lo & Wang, 2007). Reducing the cost contributes to an increment in the financial position. Therefore, the objective of cost control is achieved through the achievement of financial targets on cost, and the reward is tied to this achievement. Thus, these firms focus more on rewarding managers based on achievement of financial targets, with limited focus on improving or reducing specific non-financial measures. This provides justification of the mean analysis finding, where the defender firms' emphasis on non-financial measures is less than other two Miles and Snow strategy orientations.

Furthermore, unlike the prospector, the defender firms grow the market of the existing products or services. Firms adopting the defender strategic orientation are not highly ambitious in developing new innovations. They direct the managers to focus on increasing the revenue of existing market shares, and therefore, the financial achievement is paramount for firms adopting the defender strategy orientation. The emphasis of financial measures like ROI, RI, and so forth, will be the measure for rewarding the managers' efforts and there will be less emphasis on non-financial measures. Once again, this is reflected by the mean score, which shows that the defender firms least emphasize upon non-financial measures, but do not neglect them entirely. As noted by Desarbo et al. (2005), these firms stay within a limited range of products, focus more on resource efficiency, and process improvements that cut manufacturing costs. Hence, the emphasis on non-financial measures is more on cost control for process improvement and reduction of cost. Nevertheless, this target is finally linked to the financial outcome where the managers are rewarded on this basis.

Lastly, the analyzer firms which adopt a strategic orientation share certain similar characteristics of the prospector and defender firms. The analyzer firms act as a defender in stable product markets and as a prospector in new-product markets. They are not the initiators of innovation like prospector firms, but they react to change faster than defenders. A business pursuing an analyzer strategy competes sometimes as a defender, and other times as a prospector, since it requires substantial resources to be able to do both simultaneously. Therefore, the performance appraisal is based on both effectiveness and efficiency measures, which are mostly rewards related to marketing and engineering tasks (Blackmore & Nesbitt, 2009 ; Desarbo et al., 2005). However, they are not as aggressive as prospector firms, where the emphasis is highly on non-financial measures for performance appraisal, as per reasons explained earlier. The analyzer firms' target is on both financial as well as non-financial measures, where the focus is on target achievement of the existing business line as well the new business line. However, this new business line is already established by the prospector firms. Therefore, the emphasis on non-financial measures is not as rigorous as it is for prospector firms in rewarding the managers' efforts, but rather on developing the business which is already established by the prospector firms. However, the analyzer firms'

emphasis on non-financial measures is greater than it is in the case of defender firms, although it is not as great as in the prospector firms. The findings of this study support this claim and have revealed that the emphasis of the analyzer firms is second ranked for the mean score. This indicates that the emphasis of these firms is on non-financial measures for determining the reward system, but they are not as aggressive as prospector firms, and do not possess a limited focus like defender firms.

On the whole, the findings of this study support the research hypothesis that the Malaysian manufacturing firms' emphasis on non-financial measures for determining the rewards for managers do differ among the strategic orientations. Sufficient discussions have been provided in this regard to explain the difference between the three Miles and Snow strategic orientations among the defender, analyzer, and prospector. As highlighted, the findings of this study concur with the findings of Blackmore and Nesbit (2009), that for defender firms, the organizational performance is measured against previous years, where the reward system favors production and finance. As for prospector firms, the organizational performance is measured against important competitors, where the reward system favors marketing and R&D, and finally, the performance appraisal is based on both effectiveness and efficiency measures. Therefore, most rewards are based on marketing and engineering for analyzer firms. The discussion highlighted in this paper supports the view that the emphasis of non-financial measures for the reward system does differ depending upon the firms' focus on strategic orientations.

On the whole, the research findings from this study provide valuable knowledge for organizations and policy makers. As for the organizations, the findings from this study indicate that the firms' strategy orientation is an important element to formulate an effective performance measurement system. If the performance measures in the performance measurement system are not aligned with the firm's strategic orientation, then the allocation resources will not add value to the business growth. This is because the firm's performance measure does not provide relevant information pertaining to the strategy that the firm has adopted. On the other hand, the firm operating within the manufacturing sector is making significant contribution to the national GDP growth. Therefore the relevant Ministry as policy makers should educate the entrepreneurs, especially the ones operating the SMEs, via training and workshop. The focus of these industry courses is to make them to understand the relationship between the performance measures and strategic orientation. Improving the business operators' knowledge will allow them to take active participation in designing the performance measures that align with the firms' strategic orientation.

Limitations of the Study and Scope for Further Research

A point to note is that this study focuses only on whether the emphasis of non-financial performance determines the reward, not the specific performance measures. Thus, a future study is recommended to empirically explore in detail the type of performance measures under different dimensions of non-financial measures, that is, customer, internal learning, and growth, that is emphasized by different categories of the Miles and Snow strategic orientation. It should also make a comparison between the service industry and the manufacturing segment. This is because of the increasingly growing service industry like the shared service sector making significant contributions to the Malaysian economy. Besides, future studies can also identify how the compensation scheme is determined on the basis of risk factors as part of performance measurement. According to Crouhy, Galai, and Mark (2006), executives as well as top managers' attention is mainly focused on the achievement of annual sales, profits, net financial debt, and other accounting measures without considering or being responsible for large risks taken and possible future negative consequence resulting from their decisions. The amount of compensation and its allocation within the firm should take into account the risk of carrying out the consequences of unforeseen or partially know situations. Thus, future studies recommended exploring whether the Malaysian firm incorporates the risk measures as part of non-financial performance measures.

Finally, the study is not without any limitations. The only limitation is that the data collected for this study was from the middle management. Albeit, the middle management performs the division's appraisal; the reward is mainly determined by top management and, therefore, the emphasis on performance measures from their point of

view might differ from the views of the middle management. Thus, this can also be a focus for future studies. On the whole, the findings of this study provide significant contributions and add knowledge to performance management research.

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