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Developing Contemporary Performance Measurement System Performance Model for Co-operatives in Malaysia: Is it Necessary?

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ABSTRACT*: Cooperatives in Malaysia have crucial roles in developing business systems, and making it possible for the country to join the global cooperatives society and sophisticated economies. Therefore, top management in Malaysian Cooperatives are aggressively designing and executing their strategic plan through performance measurement system. This paper will discuss whether contemporary performance measurement system can be apply in Malaysian cooperatives. The existence of strategic, comprehensive and dynamic in cooperative performance measurement system is needed as it will provide co-operatives' management with valuable insights the role of contemporary performance measurement system model which could assist them in aligning their performance measurement system.*

Keywords - *Co-operatives Management, Performance Measurement System, Strategic Management, Management Control System*

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1. Introduction

Co-operatives are distinctively a different form of enterprise and unique way of doing businesses. Although in certain respect it resembles other businesses; having similar physical facilities, perform similar functions, and follow sound business practices, but as socio-economic organizations, the main purpose of a co-operative is to improve the wellbeing of its members, financial or otherwise. Differences can also be observed in the co-operative's purpose and principles, its ownership and control, and how benefits are distributed. In different countries, co-operatives may take specific different forms of incorporation. Some are formed as entities limited by shares as in Malaysia, or elsewhere organized as non-capital stock corporations under state-specific cooperative laws, or even in the form of unincorporated associations. Co-operatives also range in size from small stores to large enterprises. Throughout the world, co-operatives are providing cooperatives members with just about any goods or services such as financial services, utilities, consumer goods, affordable housing, childcare, equipment, hardware and farm supplies, marketing of agricultural products and healthcare.

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The co-operatives sector in Malaysia, placed under the authority of the Malaysian Co-operative Societies Commission (MCSC) has become an important part of the economy and made major impact on the lives of millions of Malaysians. From only 11 cooperatives in 1922, as of 30 June 2015, the movement has registered 12,493 societies with a membership of 7.42 million people and total assets worth RM 120,114.10 million (Hayati, Asha'ari, & Ahmad Faizal, Shaarani Norbiha, 2008; Malaysia Co-Operative Societies Commission, 2015) These co-operatives have evolved from credit, agricultural and consumer function into a wide range of business activities covering banking, credit and finance, agriculture, housing, industrial, consumer, construction, transport and services. In terms of numbers, the co-operative sector is dominated by the consumer co-operatives 40.3% (adult co-operatives 21.7 % and -school co-operatives 18.6%), followed by services co-operatives 23.5 %, agricultural co-operatives 21.7 %, and finance/ credit co-operatives 4.8%. However in terms of asset and turnover, the credit and banking co-operatives formed the strength of the movement. Although the 598 credit and banking co-operatives account for less than 5.0 % of the total number of co-operatives, they own 80 % of the combined turnover, 66.8 % of the shares and 87.2% of the movement as stated in Table 1.

Table 1: General Statistic of Co-operatives
(According to function, as at 30 June 2015)

NO.	FUNCTION	COOP (UNIT)	MEMBERS (PEOPLE)	RM (MIL)		
				SHARES	ASSET	TURNOVER
1	BANK	2	982,175	3,308.54	92,141.04	10,527.56
2	CREDIT	598	1,353,433	5,854.10	12,588.95	2,931.83
3	AGRICULTURAL	2,707	750,584	660.04	2,661.10	567.80
4	HOUSING	246	156,457	188.24	880.00	58.53
5	INDUSTRIAL	282	18,203	11.25	79.88	22.08
6	CONSUMER	5,045	2,729,238	349.90	1,690.28	826.47
7	CONSTRUCTION	212	124,494	66.76	369.31	25.03
8	TRANSPORTATION	466	149,197	68.44	311.83	433.71
9	SERVICES	2,935	1,154,238	3,202.93	9,391.71	1,276.50
TOTAL		12,493	7,418,019	13,710.19	120,114.10	16,669.50

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Of the 12,493 co-operatives, 173 co-operatives or 1.4% are considered as large sized co-operatives and another 437 co-operatives or 3.5 % are medium sized co-operatives. Small co-operatives formed 7.7 % while the mass, 87.4% of the sector is comprised of micro sized co-operatives. The assets accumulated by the 173 large co-operatives formed 94.5 %, while the turnover generated by these large co-operatives make up 90.4% of the total turnover of the sector. The remaining of the asset accumulation (5.5%) and turnover generated (9.6 %) were put together by the 12,320 medium, small and micro sized co-operatives. Both the large sized co-operatives and micro co-operatives contributes to a large number of co-operative members amounting to 76.9% as stated in Table 2.

Table 2: Number of Co-operatives
(According to Cluster, as at 30 June 2015)

NO.	CLUSTER	COOP (UNIT)	MEMBERS (PEOPLE)	RM (MIL)		
				SHARES	ASSET	TURNOVER
	BIG	173	2,912,869	11,262.47	113,545.68	15,063.65
	MEDIUM	437	854,798	1,581.73	3,767.69	930.02
	SMALL	963	857,870	496.35	1,513.88	413.03
	MICRO	10,920	2,792,482	369.64	1,286.84	262.80
TOTAL		12,493	7,418,019	13,710.19	120,114.10	16,669.50

*Cluster Definition (Suruhanjaya Koperasi Malaysia, 2010):
Large co-operatives : total annual turnover above RM 5 million
Medium cooperatives : total annual turnover RM 1 million to RM 5 million,
Small co-operatives : total annual turnover RM 200,000- RM 1 million.
Micro cooperatives : total annual turnover up to RM 200,000

The asset accumulation, turnover and the growth in the number of co-operatives to a certain extend portrayed that co-operatives have gained huge support and recognition from the people and is a force that is important to the economy. Accordingly the policy formulation of the National Co-operative Policy (NCP) is aimed to strengthen the co-operative movement and transform co-operatives into institutions capable of taking part in the economic and social development of the country. The NCP also envisaged the Malaysian co-operative movement to become a competitive, dynamic, strong and self-reliant organization, venturing into high value economic sectors and significantly contributing to the creation of business opportunities and employment while providing the best services to their members (Suruhanjaya Koperasi Malaysia, 2010) .

2. Performance Measurement System In Cooperatives

The introduction of National Cooperative Policy 2011-2020 is a continuation from the previous policy (The National Cooperative Policy 2002 - 2010) by outlining five strategic thrusts in enabling the co-operative movement to have an active role in developing the country with public and private sector. Many organizations such as Malaysian National Co-operative Movement (ANGKASA) and Malaysia Co-operative Societies Commission of Malaysia (SKM) are taking proactive measures in line with the National Cooperative Policy 2011-2010 in transforming the co-operative movement through projects with economic impact. As a measurement mechanism, Malaysia Co-operative Societies Commission of Malaysia (SKM) releases a profile of top 100 co-operatives in Malaysia since 2009. The assessment process is very objective base on financial and nonfinancial indicator. Further investigation on the 100 list has shown there were not so much changes in terms of co-operative selected each year.

Performance measurement system has added positive value to the organizations competitiveness. Further investigation has identified diagnostic use and interactive use of performance measurement system must be applied simultaneously. Diagnostic use involve the review of critical success factor in order to maintain and monitor the organizational activity while interactive use refers to active and frequent involvement of top management in monitoring process. Surprisingly, when high levels of diagnostic use were coupled with low level of interactive use produced low level of organizational capabilities. Therefore, the combination of both use in performance measurement system at maximum level definitely increase the organizational leading advantage and performance (Koufteros, 2014). Timing also has significant impact on the information in performance measurement system as it guide the management to focus on dynamic changes over the organizational activities especially when non-financial measures involve (Chen, Martin, & Merchant, 2014). Consensus between operational managers and employees is also critical to the success of organization's strategy implementation and the effectiveness of performance measurement system (Ho, Wu, & Wu, 2014).

Performance measurement system has significant effect to the individual employees performance. The interactive utilization of non-financial performance measures is important for generating a positive psychological effect, decreasing role ambiguity and indirectly increasing performance (Marginson, McAulay, Roush, & van Zijl, 2014). The design of performance measurement system also motivate discretionary behaviour such as knowledge-sharing in relations to performance areas (Cheng & Coyte, 2014). Financial and non-financial measures are associated with employee intrinsic motivation to participate in target setting (Lau & Roopnarain, 2014). Clarity of goals, the ability to select undistorted performance metrics and the degree to which managers know and control the transformation process tends to enhance performance (Speklé & Verbeeten, 2014). A few tools have been suggested such as

Performance Alignment Matrix (Melnyk, Bititci, Platts, Tobias, & Andersen, 2014), the Performance Wheel and Small Business Performance Pyramid (Watts, McNair, & Bard, 2010).

Performance measurement systems are currently evolving and firms are more likely to have a formal performance measurement system that relies primarily on non-financial knowledge metrics (Rowe & Widener, 2011). Performance measurement system has been recognized as critical factor for the effective and efficient management tool in competitive environment. The need of contemporary performance measurement system which consists of strategic, comprehensive and dynamic measures is new in the literature. In dynamic environment, the interaction between elements in performance measurement system should be explainable and desirable.. Focusing on the performance measurement system design, this study aims to examine the existing of strategic, comprehensive and dynamic elements in university performance measurement system.

The need to reform in cooperatives management styles is associated with stakeholder demands as well as to achieve high turnover as a return to cooperative members. But, study specifically on performance measurement system practices amongst cooperatives are still lacking. As at time, research conducted focus on performance indicator use in determining performance while the process of performance measurement system setting and design were not being the interest of researchers (Bekkum & Ole Borgun, 2008).

3. Contemporary Performance Measurement System

Changes in social, economic and technology are forcing performance measurement system to be contemporary. Despite off produce positive change in organizational culture, understanding customer needs and perform strategic management roles, the roles of performance measurement system has evolve to new roles such as for continuous improvement, organizational learning and change management. define strategic (Pinheiro de Lima, Gouvea da Costa, Angelis, & Munik, 2013). The attributes and use of performance measurement system have significant indirect effects on the relationship between the differentiation strategy, environmental competitiveness and organizational performance (Amizawati, 2011).

Today, contemporary performance measurement system comprises the use of financial and non-financial performance measures linked to the organization's strategy. An example of contemporary performance measurement system is balanced scorecard which advocate use of an array of financial and non-financial measures (Cheng, Luckett, & Mahama, 2007). It helps organization to translate its strategies in executable results by combining resources and financial capacity. Franco-Santos et al. (2012) argue that a contemporary PMS exists if financial and non-financial performance measures are used to operationalize strategic goals. They assume that the role of performance measurement system is to evaluate performance and comprise of supporting infrastructure. Definitions by scholars highlight the importance of comprehensiveness and strategic link in performance measurement system but Henri (2010)

raise the issue of periodic revision on measures to reflect environmental changes. Therefore to be precise in defining contemporary performance measurement system, three elements should apply; comprehensive, strategic and dynamic. It should consist financial and non-financial measures, clearly link to strategic objectives and reflect the surrounding environments.

3.1 Strategic Performance Measurement System (SPMS)

Strategic performance measurement system are designed to present managers with financial and non-financial measures covering different perspectives which provide a way of translating strategy into a coherent set of performance measures (Chenhall, 2005). If the strategy information is provided and all measures are strategically linked, the common measures bias is eliminated (Humphreys & Trotman, 2011). As the company pursuing different strategy, the use of more non-financial based performance measurement system has a positive effect on performance (Tsamenyi, Sahadev, & Qiao, 2011). Managers' assessment about the importance of the firm's strategic resource mediates the association between the importance of strategic resources and performance (Widener, 2006). In addition, the participatory development process increased employees' attitude, perceived social pressure and capability to take initiative amongst employees (Groen, Wouters, & Wilderom, 2012). In Spanish companies, a positive association between strategic performance measurement system and organizational performance is mediated by the comprehensiveness of the strategic decision array (Bisbe & Ricardo, 2012).

There is a significant relationship between strategy, organizational structure and environmental uncertainty and the use of non-financial and process measures (Gosselin, 2011). However, output measures were commonly used than process measures amongst microfinance institutes (Waweru & Spraakman, 2012). The effect of performance measure use on financial strategic decision influence depend on two properties of the performance measures; decision-facilitating use and use for accountability (Artz, Homburg, & Rajab, 2012). In Netherlands, the alignment to environmental strategy is mostly achieved through the increased quantification of environmental measures (Perego & Hartmann, 2009). An example of strategic performance measurement system is performance goals are explicitly linked to long term strategies, high degree of management involvement in the design and selection of the performance measures, uses measure related to strategy dan PMSs offer assistance to organizational members that helps them understand relationships between activities and functional areas.

3.2 Comprehensive Performance Measurement System (CPMS)

While discussing the appropriate use of performance measurement systems and their effects, the fit between contextual factors and the design of management control systems is relevant to enhance organizational performance. To materialize it, the comprehensiveness of measurement is workable by integrating measures related to the four perspectives of the balanced scorecard (BSC); financial, customer, internal business processes and learning (Lee & Yang, 2011). Many companies use BSC as a framework to aid decision making (Khan, Halabi, & Sartorius, 2011). In Australian local councils, a significant relationship exists between the use of

multidimensional performance measures, link performance to rewards, training, teamwork with the effectiveness of PMSs (Baird, Schoch, & Chen, 2012).

In the literature, performance measurement systems affect individual performance through cognitive and motivational mechanisms. A more comprehensive performance measurement system can helps managers to build new mental models of business unit operations (Hall, 2011) and organizations need to consider the interactive effects of different performance measures in multi-task settings (Bol & Smith, 2011). In order to achieve high level of comprehensiveness in performance measurement system, the organizations have to identify stakeholders and their interests, balancing of objectives fed into the design and demonstrate the enabling role of management control system (Sundin, Granlund, & Brown, 2010). CPMS is indirectly related to managerial performance through the mediating variable of role clarity and psychological empowerment (Hall, 2008). Reliance on multiple performance measures on subordinate managers' performance is contingent on goal uniqueness (Sholihin, Pike, & Mangena, 2010). An example of comprehensive performance measurement system is provides broad range of performance information about different areas of organization, a range of measures cover the critical area of departments operations, and a diverse set of measures related to the key performance areas of the organization.

3.3 Dynamic Performance Measurement System (DPMS)

According to Korhonen et al. (2012) , performance measurement dynamism exists on four different levels , the dynamic role in the control package, the dynamism of PM use in the dynamic that occurred, the dynamism of measure selection and the dynamism of the components of single measures. The dynamic of performance measurement system also exist when managers use broad-based performance measurement information for feedback and feed-forward control (Grafton, Lillis, & Widener, 2010). An absence of dynamic performance measurement system may be more harmful in a context of higher levels of change than to have dynamic PMS even if they are not required (Henri, 2010). Periodic revisions of performance indicators necessarily are made on the internal and external change. An example of dynamic performance measurement system characteristics are performance indicators were deleted and added as reaction to environmental change, changes occurred in performance target and changes occurred in the definition of performance indicators.

4. Conclusions

Given the continuously evolving regulatory and competitive environment, cooperative top management teams are expected to react positively in achieving institutional goals, while satisfying multiple stakeholders. This can be done through designing performance measurement system in translating strategic goals. The process of planning requires performance measurement system to be strategically driven, comprehensive and proactive to reflect changes occur in co-operatives environment. As a key player to help Malaysia becoming the hub of co-operative sector globally, it is a must for co-operatives to develop contemporary

performance measurement system. Theoretically, a contemporary performance measurement system has positive effect towards individual employee, business process and teamwork.

Recent years have witnessed a new interest in cooperative organizations especially as a consequence of their transformation and expansion in new fields of activity. The capacity of cooperatives to assume a number of forms consistent with the socio economic environment in which they are situated deserves special attention as well as cooperative identity and the organizational framework as a result of cooperative evolution. Cooperatives in Malaysia were first established in 1922, the year which the Cooperative Societies Enactment 1922 was enacted. The initial objectives of cooperatives were to improve the standards of living in the rural areas and to eradicate poverty. Since then the cooperative movement in Malaysia has impacted the economic development of the nation.

Table 3: Descriptive of Cooperatives in Malaysia

STATES	**NO OF COOPERATIVES**	**ASSETS (RM - Millions)**	**TURNOVER (RM - Millions)**
Johor	1151	781	542.49
Kedah	920	637.08	258.11
Kelantan	736	1333.39	484.65
Melaka	452	417.7	76.38
Negeri Sembilan	648	311.86	137.35
Pahang	927	931.03	685.71
Perak	1249	1049.7	351.44
Perlis	175	127.63	59.12
Pulau Pinang	677	2212.34	712.25
Sabah	1150	678.82	246.51
Sarawak	917	543.68	160.71

Selangor	1394	1407.04	311.21
Terengganu	609	496.64	282.63
Wilayah Persekutuan	864	16422.46	24541.23
Headquarter	2	16422.46	6101.18
Total	**11871**	**27350.37**	**34950.97**

By the end of year 2015, there were already 11871 cooperatives (Suruhanjaya Koperasi Malaysia, 2016) as presented in table 3. The increasing number of cooperatives in Malaysia serves as a good indication that people are more confident with cooperatives as a way to improve their living in the context of economic, political and environment. This phenomenon has also affected the cooperative's top management in designing their strategic planning as well as performance measurement system.

Competitive pressure and advances in technologies challenge performance measurement system in terms of their design, operational and strategic use. Organizations regardless of their size have to react to the changes and transforming their resources to be competitive. In the transformation process, performance measurement system exist an important factor as well as employee buy-in, teamwork and collaboration (MacBryde, Paton, Bayliss, & Grant, 2014). Performance measurement system can be used for internal and external control purposes as well as their development and usage can lead to strategic learning purposes (Fried, 2010) The effect of performance measure use on functional strategic decision influence depends on decision-facilitating use and use for accountability (Artz et al., 2012). In addition, performance measurement system claims to have the control package and internal consistency (Grabner & Moers, 2013). Performance measurement system is designed to achieve the greatest possible goal congruence such as employee pursues personel goals that are parallel to organizational goal. To achieve it, justice and fairness are crucial to be put in contexts as well as the use and the design of performance measurement system (Cugueró-Escofet & Rosanas, 2013).

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