

## Exploring Divisional vs. Managerial Performance Evaluation Practices in Listed Companies: Evidence from Sri Lanka

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### Abstract

*Businesses have become more and more widespread and diverse and, thus tend to apply strategies i.e. decentralization to improve the performance while securing long term growth. The main objective of this study is to provide with a comparative analysis of divisional vs. managerial performance evaluation (PE) practices of listed companies in Sri Lanka, focusing on common measures and owned Key Performance Indicators (KPIs), and allied purposes. This study applies Mixed Method Research (MMR) approach. Data were gathered through a questionnaire survey and discussions with financial executives of 42 listed companies representing five industry sectors. Facilitating with SPSS software, quantitative data were analyzed using frequency tables and Fisher's exact test, and thematic analysis and content analysis were applied for qualitative data. The findings reveal that almost all companies evaluate both divisional and managerial performance to achieve multiple purposes, agreeing to controllability principle and mostly compared with budgeted outcome showing its soundness and popularity in this function. Determining separate units/ divisions for PE largely depends on specific situations, nature of businesses, operations and markets dealt with (i.e. Plantation sector), and attitudes of management. With regard to the importance of measures surveyed, no differences appear between divisional and managerial PE, and more concern goes to measures that reflect divisional contribution like sales volume, divisional net profit before taxes and contribution margin than Economic Value-added (EVA), Return on Investment (ROI), and Return on Sales (ROS). Given that the deficits of common measures, it suggests establishing owned KPIs for individual companies and modifying them as and when required to evaluate real performance effectively. Better performance would follow if this was complemented by rewards or penalties. The findings add to the understanding on the appropriateness of bases used for creating divisions and of applying common measures and owned KPIs for PE function of different companies /industry sectors, and also on complications faced with specific business/industry settings on the above concern. It also provides motivations for employees particularly for divisional managers to achieve higher performance with job satisfaction and rewards, and hence uplifting living conditions and social status too. Overall, the findings would help organizations in both developing and developed economies to establish and improve PE systems to their divisions/ branches towards achieving intended purposes successfully.*

**Keywords:** *Listed companies, industry sectors, performance evaluation, divisional vs. managerial performance, KPIs.*

## 1. Introduction

Businesses have become more and more widespread and diverse and applied strategies i.e. decentralization for enhancing the performance securing long term growth. Laosirihongthong, Adebajo, Samaranayake, Subramanian, and Boon-itt (2018) stressed that in today's business environment which is characterized by increasing globalization, intense competition and customer sophistication, organizations continue to change their global business operations to improve overall performance. Performance evaluation (PE) is important for every profit-making organization that can be employed as a means of ascertaining whether the businesses achieve the expected results during a specified time period. Thus, PE is a tool for appraising how well an organization has performed. Sulaiman, Ahmad and Alwi (2004) recognized PE as an important function of MA, particularly in companies with a divisionalised organizational structure.

To avoid complications faced by the top management in handling operations of divisionalized companies, it is apposite to divide a company into separate divisions/ segments and assign divisional managers to operate them with a great deal of independence. Even though those divisional managers are mainly responsible for both production and marketing function of the division, they might not pursue corporate goals with the great independence permissible for them, instead they may try to achieve their own goals and receive financial and/or non-financial benefits. In the sense, it is important to measure

and control divisional (economic) performance and also divisional managers' performance towards achieving company goals as a whole (Drury, 2012). Staniskis and Stasiskiene (2006) also suggested the necessity of having accurate measurement to ascertain problems and possible improvements in a company's performance.

Factors to be considered in determining divisional profitability depend on the purpose of evaluating performance: whether it is divisional performance or divisional manager's performance. For divisional manager's performance, those items directly controllable by the manager should be considered; however, such a controllable profit provides an incomplete measure of the economic performance. In such scenario, it suggests alternative divisional profit measures: controllable profit; divisional profit contribution; and divisional net profit before taxes (Drury, 2012). Scholars critically evaluate the appropriateness of each measure for divisional PE and for managerial PE in different settings.

## 2. Literature Review

With reference to divisional vs. managerial PE, reviewed literature are presented relating to four main sections as follows.

### *2.1 Divisional vs. managerial performance evaluation: practices, bases and principles reflected*

Divisionalized organizations consist of multiple responsibility centers, the managers of which are held accountable for return on funds invested in them (Agyei-Mensah 2017). “All divisionalized organizations decentralize authority, at least to some extent, in specified areas of operations, notably a line of business or geographical area” (Merchant & Van der Stede, 2007, p. 416). Emphasizing the importance of designing appropriate performance measurement systems, Romero-McCarthy, Casanueva-Fernández, and Garza-Leal (2020) stated that in implementing strategies towards achieving determined goals, managers use tools such as performance measurement systems (PMS) to motivate employees’ behaviours. However, many strategies fail during implementation, reasonably due to managers’ insufficient attention to PMS design. They suggest that good measurements should demonstrate a set of characteristics associated with a novel and easily evoked acronym.

Management accounting theory suggests that two different measures of divisional performance should be computed: economic performance of each division and the performance of divisional managers responsible for divisional activities and outcome, and that managerial PE should be based on the controllability principle (Drury, 2007; Merchant & Van der Stede, 2007; Burksaitiene, 2008).

Supporting this view, Atkinson, Kaplan, Matsumura, and Young (2007) expressed that the controllability principle is the backbone of

responsibility accounting and this principle specifies that managers should be held accountable only for results that are within their control. Sims and Smith (2004) also pointed out that at all levels of management it appears certain aspects of their job which affect the overall economic performance of the business but may be outside their immediate control. For example, a subsidiary company of a multinational company does not have control of the monetary and tax system of the country in which it operates. Thus, in measuring the performance of such a manager, or the branch, care should be taken in applying the net profit after tax as the only measure.

Drury (2007, p. 843) further stated that “Controllable contribution is the most appropriate measure of a divisional manager’s performance, since it measures the ability of managers to use the resources under their control effectively”. There is a need to measure the performance of both divisional managers and their divisions based on controllable factors as it helps them in measuring true economic performance. Because most cost allocations tend to be arbitrary and do not have any association with the manner in which the divisions can influence such costs (Drury, 2007).

Nevertheless, Drury (2012) stated that corporate headquarters are interesting in evaluating divisional economic performance for decision making purposes such as expansion, contraction and divestment decisions; however if it applies controllability principle it would overstate economic performance of the division.

Because if such divisions were independent companies, they would have to incur the costs of services provided by the head office. In the sense, Drury (2012) suggests to include such corporate cost items in the profitability measure used for divisional PE. In contrast, Agyei-Mensah (2017), based on non-bank financial institutions in Ghana, revealed that even though management accounting theory suggests the rationale of considering only the controllable factors for managerial PE, it is not so in practice. Such an excessive use of uncontrollable factors in PE may reduce the morale of the staff involved.

With regard to bases, Waweru, Hoque and Uliana (2005) indicated that 33 respondents (67.3%) used products while only seven respondents (14.3%) used the nature of the market served as a base of creating divisions. Also, Drury, Braund and Osborne (1993) reported that 78% of the UK companies surveyed used products as a basis for creating divisions. These findings induce the fitness of using products as a base in identifying divisions/segments so that make it easier for companies to distinguish between profitable and unprofitable products. However, the literature reviewed showed that only a few studies (e.g. Drury, 2007; Burksaitiene, 2008; Drury, 2012) have examined whether divisionalised companies use different measures for measuring the divisional performance and also divisional managers' performance.

## ***2.2 The use of financial and non-financial measures for performance evaluation***

Financial performance indicates that how well an entity is utilizing its resources to maximize the shareholders wealth and profitability (Naz, Ijaz & Naqvi, 2016). Reviewing literature in four Asian countries: India, Singapore, Malaysia and China, Sulaiman et al. (2004) reported that the most commonly used measures for divisional PE represent return on investment (ROI), residual income (RI), economic value added (EVA). Of late, however, in response to suggestions particularly made by proponent of Balanced Scorecard (BSC), companies used to apply both accounting and non-accounting measures. For example, Joshi (2001) reported that 100% of respondents used ROI, variance analysis and divisional profit while 53% also considered non-financial measures in Indian companies. In the sense, business enterprises are increasingly focusing on customer satisfaction i.e. 80% of respondents in India evaluated performance based on customer satisfaction (Joshi, 2001). However, Sulaiman et al. (2004) expressed that financial-based performance measures are still preferred in the Indian context.

Similarly, Abdul Rahman, Abdul Rahman, Tew and Omar (1998) reported that in Malaysia 76% of respondents used customer satisfaction/product quality, however, the use of ROI for managerial PE is very limited (17%). Conversely, in Singapore 56% (61 companies) used ROI as a management control technique and further, 48% (29 companies) computed ROI for each division/department (Ghosh & Chan,

1996). However, in China Bromwich and Wang (1991) expressed different views based on international business accounting, that no individual can perform well without the efforts of his subordinates and colleagues and thus, the more emphasis is to be on the performance of the group as a unit rather than that of individuals using ROI (Sulaiman et al., 2004).

Laosirihongthong et al. (2018) recognized the financial measures as a dominating performance category in managing warehouse operations across all three industries selected: manufacturing, third-party logistics service provider and retail industry supply chains. These findings support the literature: for example, Wijewardena and De Zoysa (1999) revealed that for divisional PE, more Australian companies (59%) use ROI and 40% use return on sales (ROS) whilst most Japanese companies (82%) use ROS and few (37%) use ROI due to its limitations. Further, Drury (2007), referring the importance of common financial measures such as profitability, return on capital, EVA, revenue growth, cost reduction and cash flow, stated that these measures help management ascertain where a company should focus its efforts, what business processes need to be improved and also accompanying weaknesses.

Also, Waweru, et al. (2005), found that in South Africa, all respondents (49 companies) used accounting profits after overheads as the most important measure of divisional PE. However, EVA and ROI were ranked the third and the lowest respectively. These findings are consistent with literature that advocates the use

of divisional contribution as the best measure of divisional performance (Drury and Tayles, 1997; Drury, 2000). Waweru, et al. (2005) also stated that almost all (48 companies) measured managerial PE ranking 'the ability to stay within the budget' the highest while contribution margin the second. However, the results suggest the use of more than one performance measure that would discourage divisional managers from attempting to manipulate the basis of their performance evaluation. Most respondents also commented that they were in the process of introducing EVA so that it would become a more important PE tool in South Africa. These findings are also in line with the controllability principle advocated in the literature. Exploring purposes of performance evaluation, Waweru, et al. (2005) ranked rewarding managers as the most important one while training/learning as the lowest.

Meanwhile, Abdel-Kader and Luther (2006) stated that both financial measures (over 75% of companies) and non-financial measures of performance (i.e. customer satisfaction) are highly important, nevertheless an impression is that the BSC is more talked about than applied and, then agreeing to Sulaiman et al. (2004), they concluded that performance measurement is still very much dominated by financial figures. Consistently, Agyei-Mensah (2017) relating to 129 non-bank financial institutions in Ghana found that as suggested by Waweru, et al. (2005), majority used different performance measures, and both financial and non-financial performance measures were equally used in measuring the divisions' and manager's

performance; however, none of them have ever used BSC probably due to the lack of knowledge on it among the respondents, and thus emphasized the need for such institutions to consider the adoption of the BSC as it will help introduce multiple dimensions of performance.

### ***2.3 Association between budgets/ budgetary control and performance evaluation***

Egbunike and Unamma (2017) revealed that budgets and budgetary control could serve as an avenue for PE in hospitality firms in Nigeria. They recommended to carry out PE on every aspect of their budgets and budgetary activities as an approach to ensuring that budgeted outcomes are met. They also suggest that budgetary costs should be a source of determining the most-fit PE technique for hospitality firms since such PE systems can provide different types of economic benefits to them.

Consistent with prior literature Arnold and Artz (2019) found that even though the majority of firms (72%) use a single budget at the beginning of the year, majority of firms (71%) use separate budgets for planning and performance evaluation at the end of the year. This emphasizes the degree of association between budgets and PE and suggests that firms force to adjust budgets set at the beginning of the year focusing on planning and performance evaluation in the course of the year. In turn, Arnold and Gillenkirch (2015) revealed that if the superior is restricted to use a single budget for both planning and PE, these concerns tend to

be even larger particularly relating to PE and further; it increases subordinate cooperation towards performance. They further investigated whether a single budget can be effectively used for these two conflicting tasks as against two separate budgets and found that the superior's supplementary planning task enhances subordinate cooperation during and after budget negotiations.

Supporting the above views, Waweru, et al. (2005) demonstrated that flexible budgeting is most widely adopted by 68.7% of South African companies. These findings are consistent with theory which advocates the use of flexible budgets in view of the rapidly changing business environment. Similarly, according to Waweru et al., (2005), Szychta (2002) reported 74% and in Kenya Waweru et al. (2003) found 68% of companies that use flexible budgets. In this respect, it suggests that South African companies prefer to use subjective methods based on managerial experience.

With regard to performance and participative budgets, Eko Hariyanto (2018) revealed that participative budget assists to increase managers' performance through the increase in goal commitment, which has a significant, positive effect on motivation, and in turn, motivation has a significant, positive effect on managers' performance. However, the author contended that participative budget does not directly affect the manager's performance.

#### *2.4 Criticisms for financial performance measures and consideration of supplementary measures and future attention*

Even with the extensive use of financial measures, considerable criticisms were made on the application of ROI by United States companies particularly for managerial PE (Kaplan, 1984; Sakurai, 1991). The trust behind this criticism is that ROI leads managers to give extensive attention to short-term profitability, which in turn, decrease investment for research and development so that provide restriction to innovation. Wijewardena and De Zoysa (1999) also confirmed this situation in Japan. In this setting, Sakurai (1991) expressed that ROI is oriented towards shareholders whereas ROS is market-oriented and provides useful insights to Japanese manufacturers for making pricing decisions in target costing.

Sulaiman et al. (2004) also emphasized that in measuring divisional performance, relying on accounting-related measures, i.e., ROI, EVA is not enough, and thus proponents of the BSC argued that non-financial measures should also be used. Consequently, many companies are currently focusing on both accounting and non-financial related measures. With this in mind, introducers (or inventors) of the BSC have focused on four perspectives of a business: the internal business process, learning and growth, customers and financial aspects assuming that, in order to achieve a balance, firms need to focus on all these perspectives. Supporting views of Sulaiman et al. (2004), Merchant and Van der Stede (2007, p. 420) stated that “ROI measures

can create a sub-optimisation problem by encouraging managers to make investments that make their divisions look good even though those investments are not in the best interest of the corporation”. Meanwhile, Burksaitiene (2008) suggested based on many researchers opinions, to use residual income to overcome the sub-optimization problems of the ROI.

To address the shortcomings of financial performance measures such as ROI, Kaplan and Norton developed the BSC performance measurement in 1992 by incorporating non-financial perspectives such as measures of market share, extent of innovation and customer satisfaction. The BSC is a comprehensive framework that translates the company’s strategic objectives into a coherent set of performance measures (Kaplan and Norton, 1996).

According to Kádárová and Kočišová, (2016), key performance indicators (KPIs) are measures that quantify objectives and enable the measurement of strategic performance, which reflect critical success factors (CSFs) of a company. Thus, the application of KPIs provides executives with a high-level, real-time view of the progress of a company. KPIs are one of the most influential tools for companies in achieving performance improvement so that such KPIs should become a core goal of any performance management system. Laosirihongthong et al. (2018) reported that various studies identified many performance measures, for example, Lu and Yang (2010) based on a comprehensive literature review, identified seven common

measures which are profit rate, sales growth rate, reduced operation cost, return on investment, market share growth, customer relationship and customer satisfaction.

Chenhall and Langfield-Smith (1998), despite the fact that high adoption rates and high benefits shown relating to financial performance measures, indicated that the majority of large Australian manufacturing firms have adopted a range of non-financial measures/ information, i.e., BSC, customer satisfaction, employee attitudes, team performance, qualitative measures, and ongoing supplier evaluation. The findings ultimately suggest that financial performance measures continue to be an important aspect of MA; however, these are being supplemented with a variety of non-financial measures. In this ground, Hyvönen (2005) revealed that Finnish firms place greater emphasis on recently developed non-financial measures than do Australian firms. Supporting this stand, Hyvönen (2005) further disclosed that even though a greater emphasis is to be placed on newer practices, future emphasis will be on product profitability analysis, budgeting for controlling costs and qualitative measures in performance evaluation.

The above literature review revealed that financial performance measures are important for both divisional and managerial PE. In order to have better PE by overcoming limitations of financial measures like ROI, firms are compelled to adopt variety of measures including non- financial measures like BSC

mostly together with financial measures. Also, it has little evidence on the importance of budgets/ budgetary controls in PE regardless of its importance in this function. Meanwhile, some companies are practicing their owned KPIs for PE purposes. In these settings, literature shows that still financial measures perform a leading role and also future emphasis will be on such financial measures in PE. However, very limited evidence seems in the literature on the above aspects particularly relating to developing countries like Sri Lanka. Also, regardless of the fact that identifying bases for creating divisions is considered as the initial important step in the PE process, the literature is very rare in this respect in both developed and developing countries. This research, thus, attempts to fill this gap in the literature.

### **3. Research Objectives and Methodology**

#### ***3.1 Research Objectives***

The main objective of this study is to explore the performance evaluation function of listed companies in Sri Lanka, with a comparative analysis of divisional vs. managerial performance evaluation. Thus, it attempts to pinpoint bases used in identifying divisions/ separate units for PE; investigate the manner and the degree of applying financial and non-financial performance measures, and owned KPIs by different companies/ industry sectors; examine the impact of transfer pricing on PE and; analyse methods/ bases used for comparing actual performance. It finally examines the purposes of undertaking PE function by listed companies in Sri Lanka.



### **3.2 Research Methodology**

#### *3.2.1 Research Approach*

This study was based on the Mixed Method Research (MMR) designs made by Morse (2010). This approach facilitates the researchers to obtain a rich dataset which is required for capably addressing the research question/s and to analyze them comprehensively towards obtaining meaningful findings and interpretations on the phenomena under investigation. There are certain strengths and weaknesses in both quantitative and qualitative research methods so that MMR approach is considered the most practicable reaction to this: capitalizing strengths and eliminating weaknesses associated with each method (Bryman & Bell, 2007). MMR comprises of both quantitative and qualitative data collection, data analysis, and the mixing of both these approaches in a single study, with data integrated at a certain stage (Creswell & Plano Clark, 2007).

#### *3.2.2 Theoretical drive, core component and supplemental component*

This study focuses on one paradigm out of eight paradigms depicted in MMR designs: QUAN + *qual* (Morse, 2010, p.341). Here the theoretical drive is identified as quantitative (indicated as QUAN) which is also identified as the core component and as the complete method for this study because it would answer the most of the research question/s. Then, the part of the question/s that cannot be answered by the selected quantitative method can be addressed by

either a qualitative or quantitative strategy, known as a supplemental strategy (component). It is labeled with 'lowercase' and conducted at the same time (called simultaneous, shown with a + sign) or else immediately following the core component (called sequential, indicated with an arrow→) (Morse 2010). Accordingly, this study identifies 'QUAN' as the core component, '*qual*' as the supplemental strategy and thus the research approach as 'QUAN + *qual*'.

#### *3.2.3 Sample and Population*

Here, it applied basically the multistage purposeful random sampling technique and thus, the sample would decisively consist only of manufacturing and manufacturing-related industries which are more relevant for this study than other sectors that are involved in services. Accordingly, the researcher first, purposefully selected five (05) industry sectors from twenty (20) sectors listed in the Colombo Stock Exchange (CSE) in Sri Lanka, and then individual companies were selected by applying non-random sampling techniques, such as snowball sampling, convenience sampling, and purposeful sampling. The sample for this study thus consists of 42 listed companies signifying five industry sectors: food, beverages and tobacco- F & B (8/22), chemicals & pharmaceuticals- CHEM (3/12), diversified holdings- DVS (5/16), manufacturing-MNF (18/39), and plantation- PLT (8/20). Hence, the population of this study includes 109 companies.

By applying snowball sampling which is a form of a convenience sample, the researcher

initially made contact with a small group of respondents and then used these links to make further contacts with others (Bryman & Bell, 2007). Convenience sampling signifies choosing individuals who are accessibly available and willing to participate in the survey (Onwuegbuzie & Collins, 2007). In this course, it considered factors such as the approachability, the applicability of businesses to the research area and types of data and information required in this sampling process.

### 3. 2. 4 Data Collection and analysis methods

To assure an adequate response rate and quality of data gathered, this study applied a “personal visit approach” to each company. Accordingly, data were collected mainly through a face-to-face questionnaire survey and discussions conducted simultaneously with the same respondents mostly the finance executives i.e. finance director, finance manager, finance controller, DGM finance. Thus, the researcher could obtain plentiful explanations for the responses to the survey and also descriptive analytical answers to queries made relating to the phenomena under investigation.

Relating to data analysis, two points of interface are provided in MM design for integrating core and supplemental components to form a sensitive broad analysis and interpretations: (i) *Analytical point of interface* that involves in transforming qual data into numerical form; (ii) *Results point of interface* that adding *qual* data to QUAN results (Morse, 2010). In this analysis, Results point of interface

was considered as the suitable point for mixing core component ‘QUAN’ into supplemental component ‘*qual*’. Because, in this context it is difficult to transform the qualitative data and information into numerical form, but it has an option adding qualitative data to QUAN results to obtain meaningful comprehensive analysis and interpretations for the study. In such set-up, the survey data were tabulated and analyzed using SPSS software, frequency tables, and Fisher’s exact test and, ‘thematic analysis’ and ‘content analysis’ were applied for descriptive data.

## 4. Results and Analysis

This section continues with the following sub sections towards presenting and analyzing results of the study.

### 4.1 Categories of performance evaluation

As evidenced from the survey, of the sample of 42 companies, all practice managerial PE while 39 companies adopt divisional PE (as three companies – two from F & B sector and one from DVS sector consider other measures): In F & B sector, a company manufacturing beverages evaluates performance based on processes i.e. brewing, packing, quality assurance, using their own KPIs set for each process; and another one having branches Island wide and signifying outlets as ‘supermarkets’ evaluates performance branch wise; and in the DVS sector, a garment does PE only for the entire company as a whole based on the achievement of budget targets - if they could

exceed such targets in a certain period, everyone in the company receives bonuses equally.

Further some companies use other categories apart from the two major categories: divisional and managerial PE. For example, in the whole PLT sector, companies evaluate performance at estate level located in different geographical areas, by comparing performance between estates/ managers assigned to those estates. Also, a subsidiary in a group of company in CHEM sector evaluates performance among subsidiaries. In the MNF sector, one evaluates performance channel wise while another one who is having reputation in the South Asia evaluates divisional managers

using specific KPIs so that no comparison with budgets.

**4.2 Bases used for identifying divisions/ separate units for PE purposes**

The survey evidences that of the 42 companies, 61.9% normally use more than one and the rest use only one base as depicted in Table 1. Relating to single base, it shows identical usage each signifying 19.1% (8 companies each). However, for the combination of several bases, the most popular form is ‘nature of the products’ plus ‘geographical area’ plus ‘functions’ applying it by 28.6% (12 companies).

Table 1 bases/options used for identifying divisions/ separate units of companies for PE purposes

Industry sector	Bases/ options for identifying divisions/ separate units for PE purposes (no. of companies)									Total
	1	4	1,2	1,3	1,4	2,4	3,4	1,2,3	1,2,4	
F & B	1	1	2	0	1	1	0	0	2	8
CHEM	1	0	0	0	2	0	0	0	0	3
DVS	0	1	0	1	1	0	0	0	2	5
MNF	6	6	0	1	2	1	1	1	0	18
PLT	0	0	0	0	0	0	0	0	8	8
Total	8	8	2	2	6	2	1	1	12	42

Notes: 1- Nature of the products; 2- Geographical area; 3- Nature of the markets served; 4 - Functions

Considering both categories (single base or multiple bases), the most widely used base is ‘nature of products’ (73.8%- 31companies), and a slightly lower usage for ‘functions’ (69.1% - 29 companies), which is mostly used as a base for managerial PE, while the nature of markets served is the least important (9.5% - 4 companies) and

the geographical area is the second lowest base (40.5% -17 companies).

The results of Fisher’s exact test shows a significant relationship between the bases used in recognizing divisions/ separate units for PE and the associated industry sector with a 100% confidence level ( $P = 0.01$ ). Considering patterns

of adopting bases by different industry sectors, the PLT sector demonstrates specific circumstances by adopting all companies (100%) 'geographical area' together with 'nature of the products' and 'functions' as bases, particularly due to their nature of operations spread across several estates under each company. They do not adopt 'nature of markets served' undoubtedly as they are typically dealing with international markets. Thus, whole PLT sector essentially used to evaluate performance of divisions and as well as of estates, in addition to managerial performance with respect to each division/ estate assigned for managers, and compare them among divisions/ estates.

Moreover, relating to F & B sector, except for 'nature of the markets served' other three bases are commonly used as a single base or multiple bases: 'nature of products' by 75% (6 of 8 companies) and 'geographical area' and 'functions' by 62.5% each (5 of 8 companies, similarly in each case). Because most of them in the sector are manufacturing consumer products and sometimes functioning with branches i.e. supermarkets, and distributing them through their owned sales outlets and/or dealers spread through different areas across the country. However no one in the sector uses 'nature of the markets served' possibly due to its difficultness in identifying products based on markets with their greater diversifications of products in each branch/ outlet i. e. supermarkets with a number of their own brands. Other specific situation seems at CHEM sector adopting only two bases/ options: merely 'nature of products'– by one

company (33.33%) and both 'nature of products' and 'functions' – by two companies (66.67%) perhaps due to not dispersing their businesses in separate geographical areas or markets. Thus, it shows 100% importance for adopting 'nature of products'. However, as indicated in the section 4.1 a subsidiary in a CHEM sector evaluates and compares performance based on subsidiaries in the group.

In MNF sector, the most commonly used pattern is either 'nature of products' or 'functions' with similar importance (33.33 % each, altogether 66.67% -12 of 18 companies) and then concern with the option- adopting both of these at once (11.1% - 2 of 18 companies) while adopting other options considered to a lesser extent. Also, when considering both single and multiple bases, it seems greater importance for 'nature of products' and 'functions' by adopting 55.5% each (10 of 18 companies – similarly in each case) probably because they all are engaging in manufacturing of consumer products and/or durable products by applying product diversification strategy to a certain extent. Thus, MNF sector rarely uses 'geographical area' (2 of 18 companies) and 'nature of the markets served' (3 of 18 companies) but in every situation using them together with other bases. In the DVS sector, it does not indicate specific situations; but considering single or multiple bases, it shows rather high importance for 'nature of products' and 'functions' by adopting 80% each (4 of 5 companies – similarly in each case) probably with their diversified products. The least importance indicates for 'nature of the markets served' by adopting 20% (1 of 5 companies) while showing

slightly moderate importance (40%) for 'geographical area'. Because 3 of 5 companies in the sector are dealing exclusively with international markets i.e. garments, including a multi-national company in which the head office is located in the UK.

Relating to measures used by respondents for divisional PE and managerial PE, the findings reveals that normally they use more than one measure in both types of PE and some companies use mainly their own KPIs rather than measures surveyed. Thus, the responses received in the survey can be summarized as shown in Table 2.

**4.3 Importance of performance measures used for divisional PE and managerial PE**

Table 2 Importance of performance measures used for divisional PE and managerial PE

PE measures	Level of importance (Number of Companies)								Rank	
	High		Moderate		Low		Unimportant*			
	a	b	a	b	a	b	a	b	a	b
Return on investment (ROI)	14	12	8	6	4	7	16	17	5	5
Return on sales (ROS)	17	13	6	9	7	6	12	14	4	4
Economic value added (EVA)	-	-	7	6	9	12	26	24	6	6
Contribution margin (CM)	20	21	8	8	2	2	12	11	3	3
Divisional net profit before taxes	27	26	3	2	1	-	11	14	2	2
Sales volume	27	29	6	7	-	-	9	6	1	1

- Notes: 1. (a) -divisional PE; (b) -managerial PE  
 2. \*'Unimportant' represents 3 companies who do not practise divisional PE and others who practise divisional and managerial PE by applying their own KPIs.  
 3. Ranking was based on values obtained by (high\*3) + (moderate\*2) + (low\*1)

At a glance, the findings expose that the importance of each measure for both divisional PE and managerial PE appears in the similar rank, suggesting sales volume as the most important measure (rated as high- 64.3% for divisional PE and 69.1% for managerial PE), followed closely by divisional net profit before taxes (rated as high - 64.3% for divisional PE and 61.9% for managerial PE), while CM is considered the third in the rank (rated as high – 47.6% for divisional PE and 50% for managerial PE). However, except

for EVA, which is the lowest important measure, ROI and ROS are also considered relatively low important measures compared to others.

Also, the findings indicate that respondents always adhere to the controllability principle when determining divisional contribution: they usually consider both controllable costs and non- controllable avoidable costs for divisional PE whereas only controllable costs for managerial PE.

#### ***4.4 Use of own KPIs by individual companies for PE purposes***

Even though the findings reveal the above practices in companies relating to different performance measures in the given rank, most of them rather use their own KPIs than commonly used measures surveyed mainly for managerial PE and to some extent for divisional PE. It is evidenced with the answer 'unimportant' given by considerable proportion of respondents (see Table 2) as they tend to use their own KPIs instead of common measures surveyed. However, most of respondents did not reveal the details of such KPIs. However, examples of KPIs are: direct labour cost/ factory overheads per metric ton of production, power consumption per machine/ area, number of orders not handed over to the sales department within 10 minutes of receipts, number of shipments not cleaned within the free period, number of quality defects in processes and in transactions (sales), information security, and new projects introduced in a specific circumstance considered.

Those KPIs mostly relate to non-financial measures, while common measures mostly consist of financial measures. They emphasize that these KPIs are appropriate for this task because they are set largely considering structure and the extent of duties of managers and the nature and range of tasks to be performed in each division/function. Thus, the KPIs may differ position to position and division to division, depending mainly on the factors above. Moreover, as and when required, they also

consider competitors' KPIs, if applicable and available for them.

It identifies the most influencing factors for adopting such KPIs as follows: i) Impossibility of adopting common measures for all divisions/managers. For example, some measures relate only to profit centres or revenue centres; some are only for investment centres; ii) They need to apply the most suitable measures that precisely reflect real performance of managers/ divisions including non-profit centers i.e. cost centers; and iii) They need to comply with competitors' measures and hence face competitiveness prevailed within the group and the industry.

The finance executive a company in the DVS sector, which produces garments only for export markets expressed their experience as:

We do not normally evaluate divisional performances so we do not apply any of the measures surveyed. Therefore, we do not need to create divisions for PE purpose but just identify only the functions; instead we use a measure '*budget vs. actual profit before taxes*' to evaluate overall performance of the company. Accordingly, we evaluate employees of entire company as a whole based on achievement of budget targets, and thus, if they have shown good performances achieving targets in a certain period, everybody in the company is eligible to receive bonus in a similar manner. Because we consider these achievements as an effort made by entire group than

that of specific division/s or specific manager/s.

#### 4.5 Impact of internal transactions on performance evaluation

In the survey, the respondents were also asked the extent of considering internal transactions made under transfer pricing in PE and the findings realized that, of the 31 companies practicing TP, only 22.6% always/often consider those transactions in both divisional PE and managerial PE. The findings suggest that such internal transactions made under transfer pricing do not have considerable impact on performance of both parties - buying and supplying divisions, mainly due to their TP policies implemented: The market price is the most common pricing policy

(54.8% of companies); sometimes they use 'total cost per unit' mainly for internal transactions, for example, some estates in the PLT industry transfer tea leaves at costs from one to other estate for manufacturing of tea because here supplying estates are not facilitated with factories for manufacturing process; and also, no one applies methods like direct cost and direct cost plus mark-up in any circumstances. Thus, it ensures that those internal transactions made under TP may not have substantial impact on profit or performance of related divisions of those companies.

#### 4.6 Comparison of performance for evaluation

Respondents were asked to indicate the way/s they compare performance and the results received are summarized in Table 3.

Table 3 Methods/bases used for comparing managerial and divisional performance

Performance compared with:	Managerial performance (No. of companies)	%	Divisional performance (No. of companies)	%
0	-	-	3*	7.1
1	16	38.1	17	40.5
3	1	2.4	-	-
4	3	7.1	-	-
1,2	2	4.8	1	2.4
1,3	10	23.8	8	19.0
1,4	1	2.4	-	-
1,2,3	7	16.7	11	26.2
1,3,4	2	4.8	2	4.8
Total	42	100	42	100

Notes: **1** - Budgeted performance; **2** - Similar companies in the industry; **3** - Other divisions/managers in the company; **4** - Own KPIs and other companies in the group  
 \* indicate 3 companies not practicing divisional PE.

When considering application of single and multiple measures for comparison of managerial performance, the most common practice is to compare actual performance with budgeted outcome (90.5% - 38.1 % as a single measure and

the rest as one of multiple measures). Similarly, all the respondents who practice divisional PE entirely apply budgeted performance as a measure for comparison (40.5 % - as a single measure and the rest as one of multiple

measures). Accordingly, the most widely used combination is ‘comparing actual performance with budgeted performance and with other divisions/ managers in the company’- (23.8%) for managerial PE, which is the second highest combination for divisional PE (19.0%); in turn, the combination of ‘ budgeted performance’, ‘similar companies in the industry’ and ‘other divisions/ managers in the company’ appears the highest combination for divisional PE (26.2%) which is also the second highest combination for managerial PE (16.7%). Thus, through such comparison, they could confirm whether particular divisions/ managers achieve the budget targets or not.

Besides budgeted performance, relating to managerial PE, 47.6 % (20 companies) compare performance with other managers in the company and 21.5% (9 companies) with similar companies in the industry while 14.3% (6 companies) with other companies in the group or with their own KPIs. Similarly, relating to divisional PE, 50 % (21 respondents) compare performance with other divisions in the company and 28.5 % (12 companies) with similar companies in the industry while 4.8% (2

companies) with other companies in the group or with their own KPIs.

It further convinces that in both aspects of PE, some companies use more than one measure (including budgeted performance) at once to compare performance: for managerial PE, 22 companies use more than one measure while 16 companies use only budgeted performance. Likewise, relating to divisional PE, 22 companies use more than one measure for comparisons while 17 companies compare performance only with budgeted performance. These findings suggest the soundness of using budget targets/budgeted performance for comparison of both divisional and managerial PE, because budgets by their nature present the outcome/performance level that should be expected from each division/manager in a situation where operations take place in prescribed circumstances.

#### ***4.7 Purposes of performance evaluation***

The respondents were asked to rate the importance of purposes of PE and the responses are presented in Table 4.

Table 4 Significance of purposes for evaluating managerial and divisional performance

Purposes	Responses (No. of companies)			Rank
	High	Moderate	Low	
Evaluating managers	38	4	-	1
Rewarding managers	31	11	-	3
Planning	26	16	-	5
Control	35	7	-	2
Motivation	29	13	-	4
Training/learning	15	24	3	6

Note: Ranking was based on values obtained by (high\*3) + (moderate\*2) + (low\*1)



Considering responses given as high, the findings disclose that the most important purpose is 'evaluating managers' (90.5%) and 'control' becomes the second highest (83.3%) while 'rewarding managers' (73.8%) takes the third place, however, 'training and leaning' seems the least important purpose of PE (35.7%). Importance of other purposes considered appears above average rating 'motivation' (69%) and planning (61.9%). Waweru et al. (2005) disclosed somewhat similar situation in South Africa that 'rewarding managers' was ranked as extremely important one (45%) and training and leaning was ranked the least important purpose (20%). Thus, it suggests that business firms are practicing PE to accomplish several purposes rather than one purpose, taking control measures by evaluating and motivating managers through rewarding systems for better performance.

## 5. Discussions and Findings

Findings disclose that normally listed companies in Sri Lanka evaluate both divisional performance and managerial performance which are identified as two main categories of PE. In this respect, specific situations appear in certain industries/ companies. For example, apart from the above two main categories, all companies in the PLT sector evaluate performance estate-wise; some companies in other sectors evaluate performance across their subsidiaries, branches, and distribution channels. Further, some companies e.g. a garment in DVS sector is in an opinion that it is more realistic and useful evaluating performance of the company as a whole rather than focusing on its divisions. The

perception behind this practice is that such a good performance would rather derive through a group effort than that of specific division/s or specific manager/s. These findings are consistent with those of Bromwich and Wang (1991). It suggests that the way and the extent of identifying units/ divisions/ managers responsible, for PE function may depend on specific situations, nature of businesses, operations and markets they are dealing with, and also attitudes of management of particular company.

Relating to single base or multiple bases used for identifying divisions, the most commonly used base is the nature of products (73.8%- 31companies) and then 'functions' (69.1% - 29 companies) probably due to its appropriateness and applicability for many occasions with regard to PE purposes in the Sri Lankan context. These findings are consistent with those of other developing and developed countries i.e., in South Africa, 67.3% (Waweru et al., 2005) and in the UK, 78% (Drury et al., 1993). Because by the nature, there are certain differences between the products in a company in terms of processes, procedures and resources required and the profit margin, so that this base can easily be adopted for PE purposes as more straightforward and objective. Also, through this base, companies can easily identify profitable products with high and low margins and unprofitable products and take action accordingly.

However, 'the nature of markets served' is the least important base (9.5% - 4 companies) undoubtedly due to its difficultness in demarcating products based on markets in

situations where companies function with greater diversification of products and where they are dealing entirely with international markets i.e. whole PLT sector, garments. In this analysis, 'geographical area' is identified as the second lowest base (40.5% -17 companies). Because whole PLT sector evaluates performance estate-wise, some companies in other sectors evaluate performance branch-wise and channel-wise, subsidiary-wise so that they tend to identify divisions based on 'geographical area'. Thus, bases for identifying divisions may depend on specific nature of businesses, organizational structures and networks they are dealing with, further to purposes of PE.

Relating to performance measures, as shown in Table 2, they normally use more than one measure in both types of PE and some companies use mainly their own KPIs rather than measures surveyed. These findings are consistent with literature (Agyei-Mensah, 2017; Waweru, et al. (2005) that majority used different performance measures. With regard to the importance of each measure considered it shows no differences between divisional PE and managerial PE signifying the similar rank for both aspects of PE. In this respect, priorities were given for measures: sales volume, divisional net profit before taxes; and contribution margin than others like EVA, ROI, and ROS. These findings are inconsistent with Sulaiman et al. (2004) that indicated ROI, RI and EVA as most commonly used measures for divisional PE, however, these are somewhat in line with the literature that advocates the application of divisional contribution as the best measure for

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divisional PE (Waweru et al., 2005; Drury & Tayles, 1997; Drury, 2000). Divisional contribution can be viewed in various forms such as accounting profit/ net profit, CM. In the sense, sales volume which is the most important measure of PE relating to this study seems the real causal factor/ measure for such divisional contribution. Therefore, the findings of this study further confirm the suggestion made relating to the above literature that divisional contribution is the most appropriate measure of divisional PE.

Also, the findings indicate that respondents always adhere to the controllability principle when determining divisional contribution: they usually consider both controllable costs and non- controllable avoidable costs for divisional PE (as advocated by Drury, 2012) whereas only controllable costs for managerial PE. These findings are consistent with the literature (Drury, 2007; Merchant and Van der Stede, 2007; Burksaitiene, 2008; Sims and Smith, 2004; Atkinson et al., 2007).

Supporting the views of Egbunike and Unamma (2017), the findings of this study also induce the soundness of using budget target/budgeted outcome as a measure (90.5% of companies use it) for comparison of both divisional and managerial PE. Because budgets by their nature present the outcome/performance level that should be expected from each division/manager in a situation where operations take place in prescribed circumstances, so that it precisely matches with the period concerned, the nature of the operations of divisions, and the extent and difficulty of tasks assigned to each

divisional manager, all of which encourage the company and respective managers to have fair and accurate PE.

Thus, it suggests that the companies in Sri Lankan context are practicing both divisional PE and managerial PE largely depending on measures that reflect divisional contribution, in compatible with controllability principle and in comparison of achievement (actual performance) with budgeted outcome. The findings further detect that internal transactions made under TP do not have considerable impact on the performance of two parties: the buying and supplying divisions, mainly due to the TP policies implemented i.e. adopting total cost per unit, market price, and not adopting direct cost and direct cost plus mark-up methods. For example, Companies in the PLT sector normally transfer tea leaves at costs from one to other estate for manufacturing of tea as these supplying estates are not facilitated with tea factories.

In turn, the findings of this study suggest the appropriateness of adopting their own KPIs than above measures surveyed to have better PE that would reflect real performance levels relating to each division/ manager. Because the methods, concepts, norms, procedures followed by different industry sectors and also different companies in the same sector may be largely different one to another in modern competitive business environment, and as a result, using common measures such as ROI, ROS, for all circumstances in the same manner seems to be unreasonable. Besides, those common measures have some deficits. Nonetheless, it needs

extensive efforts for business firms to identify those KPIs, and adopt them in accordance with their own business environment. But measures like divisional profit, ROI can easily be adopted by referring financial reports. These findings are inconsistent with those of Abdel-Kader and Luther (2006) and Sulaiman et al. (2004), that performance measurement is still very much dominated by financial figures.

This further suggests that Sri Lankan companies are practising PE to accomplish several purposes rather than one; however, they initially expect to take control actions through the process of evaluating and rewarding managers and motivating them to obtain a higher performance for their respective divisions and ultimately for the company as a whole.

## 6. Conclusions

Findings confirm that listed companies in Sri Lanka evaluate both divisional performance and managerial performance. In this function, they typically identify divisions/ separate units and managers responsible for divisional performance, largely depending on 'the nature of products' and also 'functions of the business' possibly due to their appropriateness and applicability to many occasions. However, in specific settings they have deliberated additional bases like geographical area (i.e. in PLT sector), however, 'the nature of markets served' considers as the least important base undoubtedly due to its inapplicability for products with greater diversification and dealing with international markets (i.e. whole PLT sector, garments). It concludes that for PE purposes, the

way and the extent of identifying separate units/ divisions/ areas/ managers responsible for them, mostly depend on specific situations; nature of businesses, operations and markets dealt with; and also attitudes of management of particular company.

It has no differences between divisional PE and managerial PE with regards to the importance of performance measures surveyed; however, more attention is given to measures such as sales volume, divisional net profit before taxes; and contribution margin than others like EVA, ROI, and ROS. It suggests that the companies in the Sri Lankan context are practicing both divisional PE and managerial PE largely depending on measures that reflect divisional contribution, in compatible with controllability principle and mostly in comparison of achievement (actual performance) with budgeted outcome. It demonstrates soundness and popularity of this comparison using budgeted outcome mainly due to their appropriateness for the period concerned and the prescribed surroundings that would encourage the company and respective managers to have fair and accurate PE.

Even though some companies engage in transactions made under TP, they do not have considerable impact on the performance mainly due to their TP policies implemented, for example, companies in the PLT sector transfer raw tea from one to another estate at costs for further processing.

In this respect, those common measures have some deficits so that they may not be

applicable similarly for all businesses/ units/ divisions for PE purposes. Thus, it suggests establishing KPIs for companies and modifying them as and when required, considering changes in the business processes and markets, and specific situations and requirements; thus they can effectively measure real performance of all functions and of personnel responsible, due to the factors described in the above discussion. This study concludes that such specific KPIs are more appropriate for the PE purposes than commonly used measures such as ROI, ROS or sales volume. Further, better performance would follow if this was complemented by rewards systems or penalties. This further suggests that Sri Lankan companies are practising PE to accomplish several purposes rather than one; however, they initially expect to take control actions through the process of evaluating and rewarding managers and motivating them to obtain a higher performance for their respective divisions and ultimately for the company as a whole.

However, this study is subject to limitations: the sample includes only five industry sectors out of twenty; all are involved in manufacturing and manufacturing related businesses and no one denotes in the service sector; all represent large and medium scale and thus not covered small scale businesses. Moreover, it examined whether companies use own KPIs apart from common measures, however, no attempt was made to analyze them because most of respondents did not reveal the details of such KPIs may be due to high competitiveness.

Despite these limitations, this study contributes to the literature, in addition to providing practical and social implications in these aspects: the findings add to the understanding on the appropriateness of bases used for creating divisions, and of performance measures: financial, non-financial and owned KPIs for different companies /industry sectors. Further, it provides certain platform to understand on the necessity, possibility and effectiveness of adopting KPIs for PE and of using different bases/methods (i.e. Budgeted performance) for comparing actual performance and, on complications faced with specific business/industry settings on the above concern. This study further provides inspirations for employees including divisional managers to achieve higher performance leading to job satisfaction with financial and non-financial rewards and hence uplifting their living conditions and social status too. Overall, the findings would help organizations in both developing and developed economies to establish and improve PE systems to their divisions/branches towards achieving intended purposes successfully.

## References

- Abdel-Kader, M., & Luther, R. (2006). Management accounting practices in the British food and drink Industry. *British Food Journal*, 108 (5), 336-357.
- Agyei-Mensah, B. K. (2017). Divisional performance measurement in the retail financial service sector: An empirical study. *International Journal of Productivity and Performance Management*, 66 (2), 180-195.
- Arnold, M. C., & Gillenkirch, R. M. (2015). Using negotiated budgets for planning and performance evaluation: An experimental study. *Accounting, Organizations and Society*, 43(4), 1-16.
- Arnold, M., & Artz, M. (2019). The use of a single budget or separate budgets for planning and performance evaluation. *Accounting, Organizations and Society*, 73(February 2019), 50-67.
- Atkinson, A. A., Kaplan, R.S., Matsumura, E.M. & Young, S.M. (2007). *Management Accounting*, (5th ed.). Prentice Hall, Upper Saddle River, NJ.
- Bromwich, M. and Wang, G. (1991). Management accounting in China: a current evaluation. *The International Journal of Accounting*, 26, 51-65.
- Bryman, A., & Bell, E. (2007). *Business Research Methods*, (2nd edn). Oxford University Press, New York
- Burksaitiene, D. (2008). Development of divisional performance measures. Paper presented at the *5th International Scientific Conference on Business and Management*, Vilnius, 16-17 May.
- Chenhall, R.H., & Langfield-Smith, K. (1998). Adoption and benefits of management accounting practices: an Australian study. *Management Accounting Research*, 9(1), 1-19.
- Creswell, J. W. (2008). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (3rd edn.). Upper Saddle River, NJ: Pearson.

- Drury, C. (2000). *Management and Cost Accounting, International*. Thomson Business Press, London
- Drury, C. (2007). *Management and Cost Accounting* (6th edn.). Thomson Learning, London.
- Drury, C. (2012). *Management and Cost Accounting* (8th edn.). Cengage Learning, India.
- Drury, C., & Tayles, M. (1997). A research note. *British Accounting Review*, 29 (3), 263–276.
- Drury, C., Bround, S., Osbourne, P., & Tayles, M. (1993). A survey of management accounting practices in UK manufacturing companies. *The Certified Association of Chartered Accountants*, London.
- Egbunike, P. A., & Unamma, A. N. (2017). Budgeting, budgetary control and performance evaluation: evidence from hospitality firms in Nigeria. *Studies and Scientific Researches, Economics Edition* (26), 23-31.
- Eko Hariyanto (2018). Effect of participatory budgeting on manager performance: goal commitment and motivation as moderating variable. 5<sup>th</sup> International Conference on Community Development (AMCA 2018), *Advances in Social Science, Education and Humanities Research*, 231, 334-337.
- Hyvönen, J. (2005). Adoption and Benefits of Management Accounting Systems: Evidence from Finland and Australia. *Advances in International Accounting*, 18, 97-120.
- Joshi, P.L. (2001). The international diffusion of new management accounting practices: the case of India. *Journal of International Accounting, Auditing and Taxation*, 10, 85-109.
- Kádárová, J., & Kočíšová, M. (2016). Performance measures of industrial companies based on balanced scorecard. *Journal of production engineering*, 19 (2), 117-120.
- Kaplan, R. S., & Norton, D. P. (1996). *Translating Strategy into Action: The Balanced Scorecard* (1st edn.). Boston: Harvard Business School Press.
- Kaplan, R.S. (1984), The evolution of management accounting. *The Accounting Review*, 59 (3) , 390-418.
- Laosirihongthong, T., Adebajo, D., Samaranayake, P., Subramanian, N. & Boon-itt, S. (2018). Prioritizing warehouse performance measures in contemporary supply chains. *International Journal of Productivity and Performance Management*, 67(9), 1703-1726.
- Lu, C. S., and Yang, C.C.T. (2010). Logistics service capabilities and firm performance of international distribution center operators. *The Service Industries Journal*, 30 (2), 281-298.
- Merchant, K., and Van der Stede, W. (2007). *Management Control Systems: Performance Measurement Evaluation and Incentives*. Pearson Education Ltd., London
- Morse, J. (2010). Procedures and practice of mixed method design: Maintaining control, rigor, and complexity. *In Sage Handbook of Mixed Methods in Social & Behavioural Research* (2nd edn.). Thousand Oaks: Sage, 339-353.
- Naz, F., Ijaz, F., & Naqvi, F. (2016). Financial performance of firms: evidence from

- Pakistan cement industry. *Journal of Teaching and Education*, 5 (1), 81–94.
- Onwuegbuzie, A. J., & Collins, K. M. (2007). A typology of mixed methods sampling designs in social science research. *The qualitative report*, 12 (2), 281-316.
- Romero-McCarthy, J., Casanueva-Fernández, A. & Garza-Leal, E.D. (2020). Performance Measurement Systems in Organizations: A Good Measurement Should Tell a S.T.O.R.Y., García-Álvarez, S. and Atristain-Suárez, C. (Ed.), *Strategy, Power and CSR: Practices and Challenges in Organizational Management*, Emerald Publishing Limited, 139-163. <https://doi.org/10.1108/978-1-83867-973-620201009>
- Sakurai, M. (1991). Fundamental Differences of Management Accounting Theory and Practices Between The U.S and Japanese Companies. *Senshu Keiei Nenpo (Senshu University)*, 16, 109-125.
- Sims, A., & Smith, R. (2004). *Management Accounting – Business Strategy*. CIMA Publishing, London.
- Staniskis, J.K., and Stasiskiene, Z. (2006). Environmental management accounting in Lithuania: exploratory study of current practices, opportunities and strategic intents. *Journal of Cleaner Production*, 14 (14), 1252-1261.
- Sulaiman, M.b., Ahmad, N.N.N., & Alwi, N. (2004). Management accounting practices in selected Asian countries: A review of the literature. *Managerial Auditing Journal*, 19 (4), 493-508.
- Szychta, A. (2002). The scope of application of management accounting methods in Polish enterprises. *Management Accounting Research*, 13, 401–418.
- Waweru, N. M., Hoque, Z., & Uliana, E. (2005). A survey of management accounting practices in South Africa. *International Journal of Accounting, Auditing and Performance Evaluation*, 2 (3), 226-63.
- Waweru, N.M., Kamasara, V., & Anyangu, M. (2003). Management accounting practices in Kenya. *Nairobi Journal of Management*, 6, 67–90.
- Wijewardena, H., & De Zoysa, A. (1999). A Comparative Analysis of Management Accounting Practices in Australia and Japan: An Empirical Investigation. *The International Journal of Accounting*, 34 (1), 49-70.