



The Management Accounting Usage in Automotive Servitized Companies: An Initial Attempt

Unggul Purwohedhi¹✉, Muhammad Kaleem Zahir-ul-Hassan², and Maqsood Memon³

¹Department of Accounting, Faculty of Economics, Universitas Negeri Jakarta, Jakarta, Indonesia

^{2,3}College of Business, Zayed University, P.O. Box 144534, Khalifa City, Abu Dhabi, UAE

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ABSTRACT

Purpose : Prior literature suggests a further exploration on the usage of management accounting (MA) techniques in the servitization context. Servitization is a movement in which companies consciously develop service offerings, which support their products to gain competitive advantage. There are still limited studies of this topic in the context of Indonesian manufacturing companies, thus this paper aims to provide evidence on the usage of MA in servitized manufacturing companies in Indonesia.

Method : We employed a qualitative approach as well as a preliminary survey to a number of selected managers and accountants from four different automotive companies.

Findings : The result shows that target costing is very crucial to the automotive manufacturing companies nowadays. We discover that competitive position monitoring, quality costing, integrated performance measurement, and brand management accounting are relevant to company's strategic position. Therefore, we find the connection between the usage of MA and company's strategic planning.

Novelty : From practical point-of-view, our study provides the evidence on the usage of MA in Indonesian servitized-manufacturing business. Also, we build a framework, which represents the relationship between the MA techniques and servitization, that could benefit business through a better understanding about the interconnections between MA usage and servitization level.

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INTRODUCTION

The competition among companies in the 21st century has been the major attention of most business literature. Companies are giving their best effort to become highly competitive through innovations in their business models and/or products and services. One of such innovations is servitization in manufacturing industry (Heaslip et al., 2018; Szász et al., 2017). Servitization is a movement in which companies consciously develop service offerings, which support their products, to gain competitive advantage (Annarelli et al., 2018; Benedettini et al., 2015; Kamal et al., 2020; Neely et al., 2011; Vandermerwe & Rada, 1988). Manufacturing companies have realized that product it self is insufficient to be competitive in this era. Now is the era of services. The service sector has been the primary source of income for many countries as well as companies (Cinquini & Tenucci, 2011). In this age, people (customers) are the primary focus of businesses not just the product. Thus, companies are attempting to understand more about their customers' expectations and are competing to deliver better value to them (Coreynen et al., 2020; Yeo et al., 2021).

Prior literature has discussed servitization phenomenon from various perspectives. Laine, Cinquini, Suomala, & Tenucci (2013) addressed the rise of new service development, which replaced traditional business perspective. Cinquini & Tenucci (2011) focused on the transformation from Goods-Dominant Logic (G-D) Logic to Service-Dominant (S-D) Logic and its impact on manufacturing companies. Management accounting researchers have paid attention to the roles of management accounting techniques to the servitization implementation, from the costing method to management control practices (Cinquini & Tenucci, 2011; Laine et al., 2013). Management accounting through its capabilities enables actors to communicate about their costs, budgets, targets and performance to diffe-

* E-mail: upurwohedhi@unj.ac.id

Address: Gedung M, Kampus A UNJ Jl. Rawamangun Muka Jakarta Timur -13220, Indonesia

rent organizational actors (Laine et al. 2013). Moreover, researchers discussed the strong contribution of management accounting to the service sector, including servitized firms, particularly the way cost accounting could provide a relevant information for decision making process (Cinquini & Tenucci, (2011). Notwithstanding the growing discussion of management accounting's contribution in the servitized context, researchers have underlined a lack of empirical studies in examining the potential roles of management accounting in servitization (Laine et. al., (2013). More specifically about the investigation on how MA information could contribute to a better understanding of accounting's roles in servitization context (Cinquini and Tenucci (2015; 2016). Management accounting could be very crucial for servitized firms due to strategy sophistication and its implementation in the servitization process (Cinquini & Tenucci, 2011, 2016). In order to address this research problem, we propose a research question as follows: "How do servitized manufacturing companies use the management accounting techniques in Indonesia?"

Therefore, the main objective of this study is to provide evidence on the usage of MA in servitized manufacturing companies in one of emerging economies, that is, Indonesia. This objective is achieved by assessing the use of MA techniques in their current practices and asking the contribution of MA techniques to the company's competitive advantage. Hence, we conducted a survey and interviews with the key persons in servitized manufacturing companies. By doing so, we are able to analyze MA usage in Indonesian servitized manufacturing companies and provide the evidence of the usage of different MA techniques that are important to the business. Finally, we build framework which represents the relationship between the MA usage and the spectrum of servitization, at the end of discussion section. We expect that this framework could benefit businesses through a proper understanding about the interconnections between MA usage and servitization level.

Traditionally, the term of business meant dealing with a process of selling commodities to the consumer to gain some profit. However, it has been realized that business not only creates and sells products to potential buyers, but also maintains customers' expectations to secure their competitive power over its competitors. Furthermore, market has been transformed from its Goods-Dominant (G-D) Logic to Service-Dominant (S-D) Logic. It has moved from the focus on manufactured goods to intangibles such as specialized skills and knowledge, and processes. This is believed to be a more comprehensive and inclusive dominant logic (Adrodegari & Saccani, 2020; Vargo & Lusch, 2004).

The concept of servitization was initiated by Vandemerwe and Rada (1988) who argued that it is no longer relevant for either industry or corporation to draw a simplistic differentiation between goods and services or assume they can do one without the other (Vandemerwe and Rada, 1988, p.314). There are many reasons why companies implement servitization to gain competitive advantage, such as: (1) creating barriers to competitors by knowing the "customer first"; (2) setting up barriers to third parties wherein manufacturers obtain "know-how/ knowledge" from their distributors; (3) creating dependency by offering good and service bundles to customers; (4) strengthening the Company market position by differentiating from competitors.

Servitization is a new perspective on how manufacturing firms could lift their ability to add value to their daily business (Baines et al., 2020; Dmitrijeva et al., 2020; Favoretto et al., 2022; Naik et al., 2020). This value adding focus together with the customer-centric view has shaped the modern business model for most of the manufacturing firms worldwide. For instance, the automotive industry no longer perceives itself as the car manufacturer per se, but they have expanded their business model with after-sales service and spare part sales as well (Shah et al., 2020). They realize that the service is essential factor for company's image as well as revenues. Kastalli and Van Looy (2013) revealed that product and service sales in the manufacturing firm complement each other. The good relationship with customer would bring a positive impact to company's product sales. This sense of complementarities between manufacturing product and services is beneficial for managers to understand the reciprocal complex relationship between product and services.

In terms of management accounting context, researchers been addressed the contribution of MA to the successful implementation of servitization. Management accounting offers useful information for decision-making by executives and it has a long history for supporting service sector through accounting systems such as cost accounting, management control systems, and strategic management accounting. Cinquini and Tenucci (2011) argue that the changes identified by the S-D logic better fit into the framework of the so-called strategic management accounting. Since they believe that strategic management accounting as an accounting concept is compatible with servitization concepts, which rely on "external orientation" such as providing accounting information about competitors, suppliers, and customers. Cinquini and Tenucci (2015; 2016) discuss the impact of servitization on the costing method such as relevant cost, cost behavior, and cost structure in servitized firms. They emphasize the importance of budget and management control system to provide a strategic direction to servitized companies. However, there is a still lack of studies that examine the potential roles of management accounting in servitization issues (Laine et al. (2013). According to their literature review, they found that there is still a research gap regarding the roles of accounting in supporting servitization. Only few studies have addressed explicitly the topic of planning and controlling the servitization. Moreover, they discovered that accounting does not succeed in supporting creativity and delivers only to some extent in supporting the overall servitization strategy. They argue that this has happened due to the fact that accounting tools available are not widely used in this context. Moreover, Cinquini and Tenucci (2015; 2016) recommend a further investigation on how MA could contribute to a better understanding of accounting roles in servitization context. Thus, we are interested in further investigating the adoption and contribution of MA in

servitization context in one of emerging economies, Indonesia.

RESEARCH METHODS

This study involved two stages of data collection: a survey and interviews. We conducted a survey in the first round of data collection due to a reason that: MA as a set of management accounting techniques is yet to be investigated in the servitization context. Prior literature has investigated partial components of MA's effects in the service sector (Cadez & Guilding, 2008; Roslender & Hart, 2003). Table 1 summarizes MA techniques which have been used in this study.

The selected MA techniques are developed based on management accounting literature, particularly the manufacturing firms. The questionnaire asked respondents' perception on: 1) The implementation of those techniques in practice. They answered from "less important" to "highly important" for each MA technique, which represents the level of usage of each similar technique in the real world. 2) The level of impact of each MA technique to company's profitability. This question is: "How is the impact of this MA technique to your company's profitability?" The answer is in 5-scale responses, ranging from "No Impact" to "Significant Impact". Moreover, the respondents of this study are practitioners from servitized-manufacturing firms. We selected our survey participants based on snow-ball sampling technique due to the lack of servitization study in Indonesia. We distributed questionnaires to four automotive manufacturing companies: two prominent motorcycle manufacturers, Astra Honda Motor (AHM) and Yamaha Indonesia Motor Manufacturing (YIMM), and two car manufacturers, Astra Daihatsu Motor (ADM) and Isuzu Astra Motor Indonesia (IAMI). The respondents' job positions vary including: cost accounting managers and staffs, senior financial analyst, accounting department heads, accounting analysts, and accounting staffs. The respondents are familiar with manufacturing business process, and the servitization that has been undertaken by the company. In order to ensure that the company has been servitized, we asked this point in the questionnaire. We asked whether the company has been adopting one of five servitization types: integration oriented, product-oriented, service-oriented, use-oriented, and result-oriented (Neely et al., 2011). Based on the responses, survey participants indicated that their companies have been servitized. In addition to that, we also asked academics to obtain different perspectives of servitization implementation in Indonesia based on academic view. They are management accounting lecturers who are familiar with MA topics and have sufficient knowledge about management accounting for the manufacturing industry. In total, there are 20 respondents in the survey phase.

Based on the survey results, we developed an interview protocol and conducted three interviews to corroborate our survey result. We needed a more in-depth understanding of what was happening in practice, in particular, the specific examples of how MA techniques were being used. We interviewed three eminent key persons from three prominent companies: one from the car manufacturer (IAMI), and two from motorcycle manufacturers (AHM and YIMM). One person from IAMI is a former vice president, and the other two are top rank accounting managers in AHM and YIMM, that is, manager A and manager B (anonymous names). All the interviewees participated in the survey. We conducted interviews in different locations and times. During the interviews, we attempted to confirm

Table 1 Selected Management Accounting Techniques

Techniques	References
Target Costing	Cadez and Guilding (2008); Roslender & Hart (2003)
Life-cycle costing	Cadez and Guilding (2008); Roslender & Hart (2003).
Balanced Scorecard (Integrated Performance Measurement System)	Roslender & Hart (2003).
Activity Based Costing/Management	Cadez and Guilding (2008)
Attribute Costing	Cadez and Guilding (2008); Roslender & Hart (2003).
Strategic Cost Analysis	Cadez and Guilding (2008); Roslender & Hart (2003).
Competitive Position Monitoring	Cadez and Guilding (2008); Cinquini and Tenucci (2010).
Competitive Cost Assessment/Analysis	Cadez & Guilding (2008)
Customer Profitability Analysis/Customer Accounting	Cadez and Guilding (2008); Roslender & Hart (2003).
Quality Costing	Cadez and Guilding (2008)
Benchmarking	Cadez and Guilding (2008)
Brand Management Accounting	Roslender & Hart (2003)

our survey results and also to explore the current implementation of MA techniques in day-to-day operations. We also tried to know the impact of those techniques on the company's strategy execution and their strategic position among competitors. We recorded each of the interview, and we transcribed it for data analysis purposes. We employed Nvivo software to conduct our qualitative data analysis, including storing the emerging concept in the nodes, developing coding, and synthesizing themes (Bryman, 2008; Miles & Huberman, 1994; Purwohedi & Ardiansyah, 2022). This research employed triangulation scheme to analyze the data (Fetters, 2018; Harrison et al., 2020; Turner et al., 2017). Triangulation refers to the view that data from different sources (survey and interviews in this case) may be combined to corroborate the findings and conclusions.

RESULTS AND DISCUSSIONS

Servitization Types of the Automotive Companies

Basically before we explore the SMA techniques, we ensured that the respondent organizations are using servitization strategy in their businesses. Therefore, in this section we will first discuss servitization types employed by the respondents, particularly two motorcycle manufacturers, Astra Honda Motor (AHM) and Yamaha Indonesia Motor Manufacturing (YIMM). According to Neely (2008), there are five types of servitization for the manufacturing industry: integration oriented, product-oriented, service-oriented, use-oriented, and result-oriented. Integration-oriented servitization or vertical integration is when the manufacturing company integrates downstream service to its current business such as retail distribution, financial services, etc. Product oriented is a condition when there are additional services for the tangible product that has been sold, for instance installation, repair, and maintenance. Service oriented is a type of servitization whose added value is embedded on the tangible product such as health management system for health devices or automated office system for computer devices. Use-oriented servitization is when the function of the product is delivered by a service provider such as lessor. Lastly, result-oriented servitization focuses on replacing the product with service, for instance voice mail take over the answering machine, or a blood pressure checker apps replacing a blood pressure device. For this purpose, we will discuss our participating companies servitization format based on this typology.

AHM provides a good example of product-oriented service system. It has been long acknowledged that AHM has a strong service paradigm in its business through its service station (workshop station) chain across the country. They introduced AHASS (Astra Honda Authorized Service Station) as part of their after sales service to the customer. This initiative has become the success story for AHM, not only because it provides ease to the customers for repairing and maintenance of their vehicles, but also increases the market value of the product. The availability of well-established workshop station chains has created a good product perception in the customers' mindset as AHM motorcycle is easier and cheaper to maintain, which in turn increases the market value. AHASS has various sets of Standard Operating Procedures (SOP) in terms of facility layout, repair and maintenance, service quality, as well as accounting system. AHM offers a franchising scheme for those who are interested to open AHASS (franchisee candidate). The candidates should have an existing building in a prospective location besides franchising fee in the beginning.

YIMM is one example of integration-oriented companies. YIMM and its parent company, Yamaha Motor Company Ltd, established a leasing company namely Busan Auto Finance (BAF). It strengthened the downstream business of YIMM by integrating the vertical business in financial service sector. The company expanded its services, not only focusing on new Yamaha brand motor cycle financing, but also other motorcycle brands, sharia-based financing services, consumer financing such as for home appliances, and also agricultural machinery financing. As of 31 December 2019, the BAF company has been operating in 249 locations across Indonesia, including 91 branches and 55 Point of Services (POS). BAF is supported by 6423 employees, and its service is registered and supervised by Indonesian Financial Services Authority .

According to the servitization practices in ADM and IAMI, we discover that both of the companies are more product-oriented companies. In other words, they are still focused on how to deliver a product, while at the same time they provide supporting services such as after-sales services. Both companies have similarities as they mostly depend on the commercial vehicles such as vans and trucks. Thus, they need to convince their customers by having reliable products along with its specifications, including a reliable chain of after sales service for spareparts and maintenance. The easiness of after sales-service is crucial in Indonesia automotive industry, as this keeps the reputation and the market value as well. Based on this information, it is obvious that these companies have implemented at least one of servitization types. Therefore, we will discuss the SMA techniques in these servitized-manufacturing companies.

Current Usage of Management Accounting in Servitized Automotive Companies

According to Table 2, we find that there are four highly extensive MA techniques in the servitized-automotive companies, i.e., target costing, activity-based costing, strategic cost analysis, and competitive position monitoring. Table 2 also shows that competitive costing technique such as competitive position monitoring, quality costing, and benchmarking are extensively implemented in the manufacturing companies daily business. Most of the respondents perceived that target costing is not only significantly implemented to a great extent (score 5) but also is the most critical management accounting technique for them. During interviews, we find that cost reduction especially

during product design stages is a manifestation of target costing practice. Two most prominent motorcycle manufacturers (AHM and YIMM) use the cost reduction program to lower their manufacturing costs, so they can compete with other companies as well as fulfill customers' expectations.

For instance, Manager A explained how his company achieved cost efficiency by implementing the cost reduction programs in its factory.

"We compare our product to our competitors' to reduce our production cost. The main principle is...it is must be apple-to-apple. For example, we compare our sport type to competitors' sport products. We estimate their profit margin and costs, then we ask ourselves...can we set our manufacturing cost 20 percent lower than their manufacturing cost. We always ask ourselves, can we do that?"

Based on manager A's explanation, it can be seen that target costing is essential to measure the efficiency of manufacturing plants concerning manufacturing assembly line. They are interconnected with one another, and they share one common goal, which is cost reduction. Manager B explained this in his company context:

"From the pricing perspective, price is still the dominant factor for Indonesian customers. If it is too expensive, then they switch to our competitor. Therefore, our production department has to control the production cost starting from the design stage without sacrificing the product safety and quality. By doing so, we can maintain our profit."

According to Manager B's explanation, cost reduction is one of the company's efforts to maintain company's profit. In the situation where there is a decline in sales, the company must improve their cost structure by imposing cost reduction program. Cost reduction program is one of the examples that management accounting can contribute to company's competitiveness, so they are still able to generate profit. Both managers show that efficiency is a crucial strategy for the manufacturing companies now-a-days, and MA through, target costing, plays a vital role in this policy. Apparently, efficiency strategy through a cost reduction program has become strategic costing approach for the company. They understand that cost reduction is a means to achieve their strategic position compared to their competitors. Thus, it shows that target costing technique is essential to the organization currently.

On the other hand, target costing implementation does not mean that manufacturing companies sacrifice the quality aspect. In relation to quality costing, respondents perceived that quality costing is among techniques that are essentially used currently (score 4 in Table 2). The discussion on the quality aspects is critical in the manufacturing process because it is related to the conformity, the fundamental element of product quality. The objective of quality costing is to direct management attention to focus on quality in a broader sense. In this study, we find that manufacturing companies do have a quality policy and place quality as one of the leading priorities of the company. Manager A describes:

"We have a minimum standard for product quality, and we have four departments that are fully committed to this quality issue, that is, quality regulation, quality assurance, quality technology, and Quality Control Circle in the production line. Quality is a must! Even we are making cost reduction, but quality should not be abandoned."

Table 2 Management Accounting Usage in the Servitized Automotive Companies

#	Techniques	No/ Very little extent	Little Extent	Some Extent	High Extent	Significant Extent	Responses	Mean
1	Target Costing	0	1	0	7	12	20	5
2	Life-Cycle Costing	1	2	2	8	7	20	3.9
3	Balanced Scorecard (Integrated Performance Measurement system)	2	0	5	6	7	20	4
4	Activity Based Costing/Management	0	3	1	8	8	20	4.1
5	Attribute Costing	2	3	2	7	6	20	3.6
6	Strategic Cost Analysis	0	2	2	8	8	20	4.1
7	Competitive Position Monitoring	0	2	1	10	7	20	4.1
8	Competitive Cost Assessment/Analysis	3	1	2	6	8	20	3.8
9	Customer Profitability Analysis/Customer Accounting	2	1	2	9	6	20	3.8
10	Quality Costing	0	2	5	5	8	20	4
11	Benchmarking	0	2	4	11	3	20	3.8
12	Brand Management Accounting	2	2	5	5	6	20	3.6

They have spent company resources to prevent product defects, and their efforts are reflected in the number of units that have product quality. They have a minimum quality standard which needs to be achieved even though cost efficiency is the primary goal in their manufacturing process.

In the performance measurement issue, we discover that Balanced Scorecard (BSC) (as an example of Integrated Performance Measurement System) is a standard performance measurement method in their daily life (score 4 in Table 2). They use BSC terminology such as Key Performance Indicators (KPIs) to evaluate individual or departmental performance. They formulate strategic objectives at the company level and cascade those goals as KPIs for the lower level. Manager A describes it as follows:

“Each department could have different KPIs based on our output. Starting from the corporate level then we break down into the divisional level and individual level at the end. So, there is a connection between the organizational levels. KPIs are our performance indicators, but besides that, we also measure non-technical aspects such as leadership.”

Alongside with his objective indicators, his company also integrates subjective performance measures such as leadership skill as KPI. The similar picture is found in Manager B’s company, where he explains:

“We have KPIs, and each person has their own KPIs. [regarding KPI formulation] we start from the top level, where the company has a specific direction where it will go, then we break down into the divisional level, departmental level, up to individual level. All of these is to achieve the company’s goal.”

Therefore, there is substantial evidence that integrated performance measurement is implemented in Indonesia’s manufacturing companies.

Management Accounting Contribution to the Competitive Advantage

According to Table 3, target costing has been perceived as the most significantly impacted MA technique to the company’s competitive advantage. Thus, Indonesian manufacturing companies believe that target costing is not only useful for current competitive position but also for the future competitive advantage. In this case, we find that manufacturing companies are still relied on the cost reduction program as part of their target costing approach to maintain their competitive position. Price is still the main factor in Indonesia automotive Industry, as Manager B explains about this:

“Price for Indonesian buyer is still important, so we maintain it not too high, otherwise they will move to our competitor. Thus, in our manufacturing department we have continuous improvement, so do other departments.”

Furthermore, there is an interesting finding about that we find in in Table 3. In terms of the contribution of MA to the competitive advantage, beside the target costing, we discover that strategic cost analysis, competitive position monitoring and benchmarking were perceived have significant impact to the company’s competitive advantage (score 4.5, respectively). Respondents perceived that competitor accounting techniques (such as competitive

Table 3 The Impact of the MA on the Company’s Competitive Advantage

#	Techniques	No Impact	Low Impact	Some Impact	Moderate Impact	Significant Impact	Responses	Mean
1	Target Costing	0	0	1	8	13	22	5
2	Life-Cycle Costing	0	2	1	6	13	22	4.4
3	Balanced Scorecard (Integrated Performance Measurement system)	0	0	4	8	10	22	4
4	Activity Based Costing/Management	0	1	2	7	12	22	4.4
5	Attribute Costing	1	2	3	9	7	22	3.9
6	Strategic Cost Analysis	0	0	1	8	13	22	4.5
7	Competitive Position Monitoring	0	0	0	11	11	22	4.5
8	Competitive Cost Assessment/Analysis	0	0	3	9	10	22	4.3
9	Customer Profitability Analysis/Customer Accounting	0	1	2	13	6	22	4.1
10	Quality Costing	0	0	4	6	12	22	4.4
11	Benchmarking	0	0	2	7	13	22	4.5
12	Brand Management Accounting	0	0	6	8	8	22	4.1

position monitoring and benchmarking) will be more contributed to the company's competitive advantage. Competitive position monitoring is the analysis of competitor positions within the industry by assessing and monitoring trends in competitor sales, market share, volume, unit costs, and return on sales. According to our interview, we discover that company A is doing market share analysis, regularly:

"There is always [analysis] about our market share, and we monitor our [market share] target daily, including target for each sales area. We also continuously monitored our market share for each product line and market segment. Usually, marketing department is the one in charge for this."

In terms of the competitor assessment, each of the company has different approach for this. They have information about competitor's cost structure and use this information to set-up cost reduction target for their product to be competitive. One of the crucial issues is how to get this information, our former car manufacturer vice president informant provides example:

"We buy our competitor's car, then we bring to our plant, then we dismantle it one by one. We analyze each part to get information about its specification and cost."

However, our interview with two motorcycle manufacturers indicate that cost assessment is not main key point to achieve competitive advantage, as they think that cost efficiency through cost reduction is the main key. They may use competitor's price as one of the references but this not the main consideration. As manager A states:

"Yes indeed we have competitors, but we can not compared it apple-to-apple due to different styles of product. If the competitor has similar style with ours, then we analyze how much the sales margin with certain cost structures. For instance, with their product specification, we are asking? can we set target 80% of their total manufacturing cost in our product. But again this is not as our main concern. In our company, what we need to control is cost between plant."

Therefore, they may use competitor's price as their reference but it is not the main consideration.

In terms of customer accounting, the main customer of car manufacturing company is their sales dealers. Therefore, they need to have a strong relationship with dealers, and in the same time, they have to monitor dealer's performance and financial stability,

"We have regular coordination with our dealers every three months. We also have a marketing program with dealers. We also analyze our dealer's financial fitness. Because we realize that if their financial fitness is unwell, then it will be affected to our sales. So, between us we coordinate each other, so we can maintain a good value chain."

Thus companies are doing customer profitability analysis to maintain their sales as well as strengthening their value chain.

Moreover, during our interviews, we find that companies put a strong emphasis on the Brand Management Accounting technique as one of the critical efforts to maintain their competitiveness. Even though, this technique is perceived has a moderate impact to the competitive advantage based on our survey, but our interviewees see from a different point of view. Brand promotion is significantly importance for manufacturing companies in the next five year due to highly competitive market. Management accounting contributes to produce a reliable accounting report which can support the existing brand management strategy. Hence, the marketing department will use this information to maintain the brand customer awareness of the manufacturing product in the long term. Based on our interview, we discover that accounting department has been working closely with marketing department to execute company's branding strategy in three areas: costing analysis, dealer relationship, and planning. For the first area, marketing department will select a specific marketing (promotion) theme for a specific product line. Hence, this marketing effort requires a detailed information about the manufacturing/production cost that is needed to fulfill the customers' expectation on the specific product brand. The accounting department is responsible to formulate a standard cost for this product which is in line with marketing requirement. By doing so, the MA through its cost accounting technique could support company's brand strategy.

Secondly, in terms of the relationship with the dealer, manufacturing companies have a comprehensive marketing strategy on how to promote their product brand with the main dealers. From management accounting perspective, manufacturing companies and dealer are working together to promote and maintain their brand by sharing financial resources that they have. Specifically, the automotive companies will decide the fair share percentage of the promotion cost allocation between them and the main dealers. This is important, since the main dealers still need a strong support from the companies to cover their promotion cost, in most conditions. Manager A explains about this:

"... We always support our dealer for our branding program or for marketing campaign. So there is a joint promotion program between us and our main dealer. The program initiatives can be from us or from dealer. [For the cost allocation], we have cost sharing policy, so if the initiative from us then we will cover 100% of expenses, and the main dealer is only need to organize the event."

Thirdly, management accounting can contribute in the promotion cost budgeting process during the planning

cycle. Management Accounting helps companies to calculate the total marketing expenses that is needed by the company to impose nation-wide brand strategy or launch a product in more specific. Manager B has more explanation on this:

“Before we implement our branding strategy, we include this program in our budget so we can support company’s strategy. For example, we allocate company’s money to launch our product.”

SMA framework for Indonesia Servitized Manufacturing Company

In this section, we propose a framework to understand the connection between the management accounting usage and the servitization level. As shown in Figure 1, our framework has four dimensions, where in the horizontal axis, it shows the continuum from goods-dominant (low servitization) and service-dominant (high servitization). And, the vertical axis shows the continuum of MA techniques usage from more tactical oriented (lower-end) to more strategic oriented (higher-end). The horizontal axis refers to our explanation about two different approaches from manufacturing companies where the servitized manufacturing company tends to shift from a goods-dominant to a service-dominant. For the vertical axis, it refers to the importance of MA techniques to the company competitive position. In terms of servitization, it is interesting to know not only which MA techniques could benefit company in gaining its strategic objectives, but also which technique is fit better for the servitization process. Therefore, we develop four quadrants in this framework, where each dimension consists of specific MA techniques that is relevant to the axis. Once the company is willing to shift from goods-dominant into service-dominant (servitized manufacturing firms), then it needs to emphasize more on the right-hand side quadrants of MA techniques. It does not mean that servitized companies should leave the left-hand side of MA techniques such as standard costing when they become servitized, they just need to give a higher proportion on the right-hand side techniques in their operations. We will explain each quadrant as follows.

The first quadrant consists of strategic cost analysis, benchmarking, competitive position monitoring and brand management accounting. The focus of MA techniques in this quadrant is to understand the market especially in the strategic-context. Companies are attempting to understand their position among the competitors. This position is vulnerable nowadays, where the company might gain top position today will be replaced by its competitor tomorrow. Based on our interview, the marketing department regularly monitors the company position including benchmarking process, and coordinates with the cost accounting department for all necessary actions that have to be made for staying competitive. Brand management accounting is an integrated and comprehensive MA technique in the company. Management accounting through its costing analysis or management control system is expected to contribute to the brand management strategy at the company level. It is an extensive process, which is executed by top management and implemented by all departments in the manufacturing company. The outcome is clear that is to achieve brand awareness in the customer’s mind.

The second quadrant is related to the shifting from goods-dominant logic to more service-dominant logic. Manufacturing firms start to source the best alternatives of becoming servitized-manufacturing firms. One of the methods is by imposing life-cycle analysis of their manufactured-product, starting from research design up to disposal stage (Huikkola et al., 2020; Lerch & Gotsch, 2014). For instance, servitized-firms realize that during after sales cycle, customers need to be convinced about the product reliability. Thus, the firm can offer a warranty scheme in this stage to maintain the product reliability, thus life-cycle costing becomes more important. Most of servitized firms especially automotive firms have implemented this life-cycle analysis as part of their pricing decision.

The third quadrant is dominated by regular and routine MA techniques, which are being implemented by the manufacturing company. Target costing is one of the leading technique in this quadrant where the real concern is the cost efficiency to reduce production cost. Corporation has a specific target of cost reduction, and this objective will be shared with all manufacturing plants, and this becomes a target for manufacturing plants. The more efficient the cost structures, the lower product price is, and it is the major determining factor for Indonesian customers’ behavior. Therefore, the manufacturing company should be aware of the product pricing of its competitors. In doing so, manufacturing companies should do competitive cost assessment to understand the cost structure of competitor’s product and to decide the best product pricing. Both MA techniques, target costing and competitive cost assessment, are still focused on goods-centric perspective where product value is determined by the manufacturers.

In the fourth quadrant, quality costing is an example of MA technique. This technique is more focused on manufacturing process but has a significant impact on company’s long-term competitive advantage. A good company will establish a good-quality system to make sure that there are no defect products, and their products comply with the quality standard. Since a good-quality product is one of the active marketing campaigns to achieve a stronger competitive advantage position in the long term, manufacturing companies make efforts to create a better product. There is no excuse with the quality, at least that what we find during our interviews.

Moreover, according to our data analysis, Integrated Performance Measurement System (IPMS) has been implemented in Indonesian automotive manufacturing companies not only for manufacturing line but also for supporting functions. They combine between financial and non-financial measures, such as leadership and internal process, and they cascade corporate target into individual principal performance indicators. This integrated performance measurement can be implemented both the low-servitized and high-servitized organization. It also can support the company’s objectives in short or long term. Therefore, we place this measurement system in the center

of the framework.

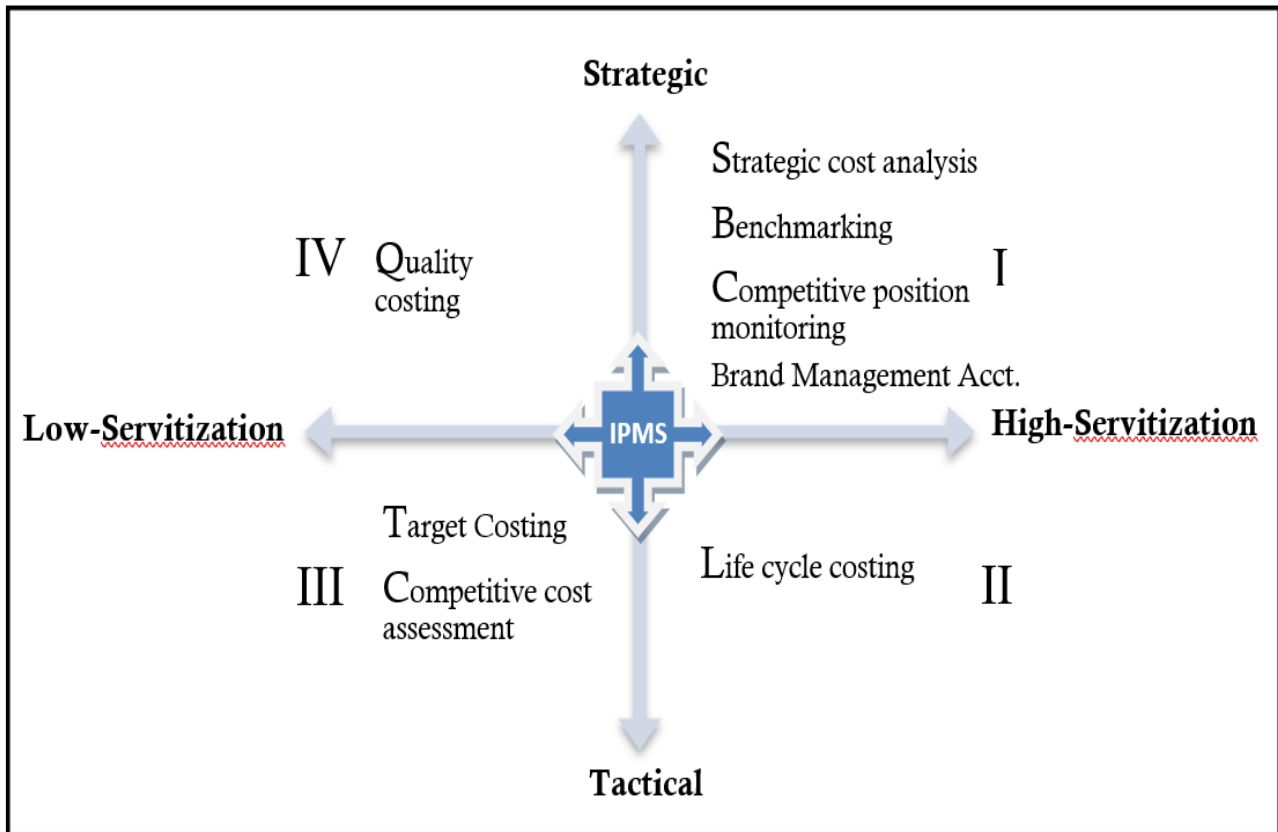


Figure 1. Management Accounting Framework for Servitized Manufacturing Company

CONCLUSIONS

This study started with the promise that this research would explore the evidence of MA techniques in Indonesian manufacturing companies and the contribution of MA to the company's competitive advantage, particularly with regards to servitization. Based on the findings of this study, we build a framework which represents the relationship between the MA usage and the spectrum of servitization. We conducted a survey in four servitized-automotive companies and then interviews with three key-persons in these companies. According to our analysis, there are compelling results on the specific MA techniques that are being used and are crucial for company's strategic position. We find that one of the MA techniques, target costing, is dominant in the companies due to their focus on cost efficiency strategy. This result shows that the product price is still the main concern for the main players in the automotive industry in Indonesia. Moreover, servitized-automotive companies extensively embrace competitive position monitoring and customer accounting as the fundamental elements of servitization in their businesses. These results provide a practical insight that even though automotive companies have shifted their strategy to be more servitized, the aspect of cost management (target costing) is still dominant for their competitiveness. In parallel, their shift to the customer-service focus is evidently emerging. We also develop a framework with four quadrants to understand how MA could be related to the company's transformation from goods-dominant (low-servitization) to service-dominant (high servitization) perspective. The framework provides guide to accounting practitioners and managers of manufacturing organizations for the adoption of appropriate MA techniques as a performance measurement and control system for the transformation from product dominant strategy to service dominant strategy.

This research is a preliminary study which captures the implementation of management accounting in Indonesian manufacturing companies. We explore this topic by conducting a small-scale survey and limited interviews. Even though the participating companies are two most prominent motorcycle manufacturers in Indonesia, the more extensive scale of study is still warranted. The next study could be a survey, which investigates the effect of MA techniques implementation in several organizations and includes different context variables such as organizational performance, customer loyalty, and satisfaction, or company competitiveness. The study on this topic in a different industry will also be fruitful to strengthen our understanding of MA in practice.

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