

SUPPLY CHAIN MANAGEMENT PRACTICES OF AN AUTOMOBILE MANUFACTURER IN MALAYSIA

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Abstract

This preliminary study examines the supply chain management (SCM) practices implemented at an automobile manufacturing firm operating in Malaysia. The case company's performance measurement system and the accountant's role in the SCM processes are also examined. The case findings indicate that supply chain planning, long term partnership with suppliers, communication and trust form the basis of effective SCM practices in the selected case company. Contrary to the literature, efforts dedicated to measure and monitor supply chain performance holistically within the case company is still scarce. The findings also suggest that despite the wide use of management accounting tools and practices in SCM processes, accountants' role in the SCM processes is limited. This initial findings offer some insights on the SCM practices in an automotive manufacturing industry. A next step from this exploratory research could be the development of a framework exploring the impact of SCM practices on organizational performance.

Keywords: supply chain management, performance measures, case study, automotive manufacturing companies

Introduction

A supply chain (SC) is typically viewed as a series of activities associated with moving goods from the raw material stage through to the end-user (Brewer and Speh, 2000). Recently, organizations have identified supply chain management (SCM) practices as a basis for enhancing organizational performance as well as

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a source of competitive advantage (Hassini, 2008; Mentzer, 2004; Paulraj and Chen, 2007). Prior studies have also examined various dimensions of potentially effective SCM practices particularly in the automotive industry, the focus of this study. Examples of effective SCM practices include supply chain integration practices (Wong and Boon-Itt, 2008; Lockstrom et al., 2008), logistic practices (Mondragon and Lyons, 2008; Liao, 2008), quality practices (Robinson and Malhotra, 2005), purchasing practices (Carr and Smeltzer, 2000), SC planning (Zhou and Benton, Jr., 2007) and SCM ethics (Svensson and Baath, 2008). Most of these findings relate to studies conducted in Anglo-Saxon countries. Hence, little is known of the SCM practices of automotive manufacturers operating within Malaysia.

Furthermore, proponents of SCM, have also noted that SCM enables value creation along the supply chain linking suppliers, manufacturers and customers, ultimately enhancing organizational performance (Fynes, Burca and Voss, 2005, Chen, Paulraj and Lado, 2004; Kuei, Madu and Lin, 2005; Sun and Hsu, 2009). From a performance viewpoint, it has been noted that an appropriate supply chain performance measurement system is critical towards determining the efficiency and effectiveness of a supply chain system (Beamon, 1998). Theoretically, various frameworks have been developed in an attempt to achieve this. For instance, the adaptation of Kaplan and Norton's Balanced Scorecard to measure SC performance (e.g. Brewer and Speh, 2000, Sharma and Bhagwat, 2007; Park et al., 2005), the use of quantitative and qualitative SC measures (e.g., Gunasekaran, Patel and McGaughey, 2004; Chan, 2003) and the focus on strategic, tactical and operational measures (Gunasekaran, Patel and Tirtiroglu, 2001) for SC environment. Langfield-Smith & Smith (2006) and Neely (2005) added that the focus of evaluating firm performance should be shifted from assessing a single entity's effectiveness towards measuring the performance of the whole supply chain.

Seal, et al. (1999) add that the ability of management accountants to provide useful and comprehensible information relating to costing and performance measurement is crucial to any organization. Thus, the importance of the role of accountants in the SCM processes should not be overlooked. Studies have shown that accountants play an important part in providing information needed for facilitating supply chain partnerships (Ramos, 2004) such as inculcating trust in SC relationships (Free, 2008). Accordingly, the Institute of Management Accountants (IMA) in the United States has recently developed a series of Statements on Management Accounting (SMA) to facilitate firms to understand the roles and responsibilities of accountants in implementing SCM. According to the SMA, the expertise of accountants can be leveraged, among others, in determining the current estimates of SC costs and performance against defined customer expectations, developing new measurements, both financial and non-

financial measures to assess the degree of SC success, providing management with reports that isolate current performance shortfall on a timely basis and so forth. Despite these developments, little is understood of the role of accountants in the SCM processes, within the Malaysian context.

Statement of Research Problem

The supply chain is composed of interdependent activities and complex causal relationships that are difficult to manage (Holmberg, 2000). Generally, the aim of SCM is to enhance the efficiency with which physical material, information and cash, flows between buyers and sellers along the chain. Researchers concur that certain practices need to be adopted to achieve favorable supply chain performance. Among the practices include long-term partnering with key suppliers, having relatively few suppliers, effective communication, working on a cross functional basis as well as positioning the purchasing function at the strategic level (Chen and Paulraj, 2007). Nevertheless, empirical studies that seek to provide a thorough examination on the effective SCM practices particularly in the automotive supply chain context are still scarce. Furthermore in recent years the automotive industry experienced fundamental changes, one of which was in the area of SCM (Saad and Patel, 2006). However, little is known of these changes particularly within the automotive industry operating in Malaysia.

Furthermore, there is a need for supply chain firms to ensure that a well-designed, integrated performance measurement system is in place in order to improve organizational performance (Henri, 2006). However, traditional performance measures suffered serious limitations due to its inability to measure the performance of the supply chain holistically. For example, Milliken (2001) commented that measures currently used to evaluate supply chains tend to be inaccurate, unrealistically set and consist of numerous metrics. Given the importance of having a sound performance measurement system for supply chains, particularly in the automotive industry, research on this area is thus warranted.

Well documented standards such as the SMA emphasize on the expected contribution of accountants in the SCM field. Similarly, previous researchers (e.g. Seal et al., 1999; Free, 2007; Joyce, 2006; Ramos, 2004) agree on the possible participation of the accounting profession in SCM implementation. However, more recently, Baldvinsdottir, Burns, Norreklit and Scapens (2009) argued that management accountants should do the basics and focus on traditional management accounting while serving the role as a corporate brake, which called for accountants to be neutral and pessimistic. Despite these mixed views, very few studies to date have investigated the nature of involvement and the extent to which accountants are involved in the SCM activities. Hence, the main purpose of this study is to contribute by bridging the existing gaps in the literature through

investigations of specific SCM practices within the automotive industry, the performance measurement system used and the contribution of accountants in the SCM processes.

Research Objectives

More specifically, this study seeks to address the following research objectives:

- i. To examine the nature of supply chain management practices implemented in the selected case company,
- ii. To investigate the performance measurement system used for evaluating the success of SCM processes, and
- iii. To determine the nature and extent of involvement of accountants in the SCM processes.

Review of Relevant Literature

Definitions and Elements of Supply Chain Management

Myriads of definitions are used to describe the elements of a supply chain reflecting the various fields from which it originates. These include (1) materials management and logistics (e.g. purchasing, operations and distribution) (Fredendall and Hill, 2001, Bloomberg, LeMay and Hanna, 2002); (2) quality concerns (Knowles, Whicker, Femat and Canales, 2005) and (3) strategic management (Chen and Paulraj, 2004). Technically, a supply chain can be described as “as set of three or more organizations directly linked by one or more of the upstream and downstream flows of products, services, finances, and information from a source to a customer” (Mentzer et al., 2001: pg. 4). A supply chain can also be described as an integrated process describing the movement of raw materials being transformed into final products before being delivered to customers (Beamon, 1999). However, a more comprehensive definition is found in the APICS Dictionary, whereby a supply chain is defined as either (1) the processes from the initial raw materials to the ultimate consumption of the finished product linking across supplier-user companies and (2) the functions within and outside a company that enable the value chain to make products and provide services to the customer.

Researchers from different background have offered various definitions of supply chain management but one of the earliest definitions is provided by Lee and Billington (1992) whereby SCM simply refers to the “networks of manufacturing and distribution sites that procure raw materials, transform them into intermediate and finished products, and distribute the finished products to customers”. As the concept evolves, SCM began to be recognized as a mechanism of integration of key business processes from end user through original suppliers in the provision

of value-adding products, service, and information for customers and other stakeholders (Lambert, Cooper and Pagh, 1998).

However, a notable definition by Mentzer et al (2001) viewed SCM as having a direct impact on the performance of both individual organization and its supply chain members. They defined SCM as “the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole” (Mentzer et al., 2001; p.18). More recently, the US Council of Supply Chain Management Professionals in 2007 provided a more comprehensive definition of SCM by including the planning and management activities of demand and supply management within and across companies. It therefore includes the coordination and collaboration with channel partners, commonly involving suppliers, intermediaries, third-party service providers, and customers.

Supply Chain Management Practices

To date, numerous studies have examined SCM practices which involve various dimensions. For instance, Zhou and Benton (2007) proposes that SC practices consist of SC planning, Just-In-Time production and delivery practices. On the other hand, Chow et al. (2008) suggests that supply chain features, integration, and customer services are typical SCM practices. Chin et al. (2004) viewed SCM practices rather loosely as a set of practices consisting of customer channel, supplier channel, material flows, information technology and corporate culture. In contrast, Chen and Paulraj (2004) used a more structured approach to describe SCM practices and this involves dimensions of strategic purchasing, supply management, logistics integration and supply network coordination.

Drawing on Chen and Paulraj’s description of SCM, Li et al. (2006) concluded that for an effective SCM the firm should consider the following practices: strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement. Li et al. (2006) added that firms which effectively implement these practices could positively enhance competitive advantage which in turn can lead to superior SC performance. On the other hand, Kuei, Madu and Lin (2001) found that quality practices potentially formed as a basis for effective SCM. In this study, SCM practices is described as a broad set of activities that integrate suppliers, manufacturers, distributors and customers with the aim of improving the performance of the supply chain (Li et al., 2006; Zhou and Benton, 2007).

Supply Chain Performance Measurement

A performance measure reflects the metric used in quantifying the efficiency and/or effectiveness of an action (Neely, Gregory and Platts, 2005). Traditional performance measures suffered serious limitations including the tendency to be biased towards shareholders, with little regard to employees' and suppliers' contribution, unable to explain the selection of specific performance measures and the role of performance targets as well as the danger of failing to consider human resource issues (Smith, 2005). The conception of measuring the performance of supply chains as a whole entity is increasingly accepted. However, the current problem of identifying an overall SC performance measure need to be addressed since failure to do so would result in inaccuracy of reporting of not showing the true "picture" of the firm performance (Miliken, 2001). Thus, there is a need for supply chain firms to ensure that a well-designed, integrated performance measurement system is in place since it could contribute towards improvement of organizational performance (Henri, 2006). A system of supply chain performance measures (SCPM) would assist organizations in the monitoring and managing of its performance between functional areas as well as measuring its services rendered to external suppliers and customers (Langfield Smith & Smith, 2006).

Traditionally, the performance of supply chains was assessed mainly on cost basis but this eventually evolves to include qualitative measures as suggested by Beamon (1999). There is also a common tendency to have too many supply chain metrics that render them less manageable. In an attempt to avoid the use of narrowly focused, silo metrics, it has been suggested that supply chain performance measurement system should be based on "systemic" thinking (Holmberg, 2000). It is to enable the shift of focus from evaluating individual entities per se towards measuring the performance of the chain as a whole, but the search for such a holistic chain-wide SCPM may not be as straightforward as one might expect. While there is some recognition that the "system thinking" approach is relevant, it is common to find a lack of connection between the supply chain measures and the overall corporate objectives (Langfield Smith and Smith, 2006). Not only that the existing measures are too many, but also that they lack balance between financial and non-financial measures.

Due to the relatively new idea of measuring SC performance holistically, debates are still ongoing on how it should be measured. While some proponents emphasized that supply chain performance measures can be either quantitative or qualitative in nature (Beamon, 1998), others argue that there should be a mixture of both (Chan, 2003). In contrast, Chan and Qi (2003) proposed a process-based model in the evaluation of supply chain performance. They suggested three dimensions of supply chain performance measures which are input measures, output measures

and composite measures. More recently, several researchers focused their attention to the use of mathematical models in an attempt to integrate the SC performance measures including the analytic hierarchy process methodology (AHP). It was argued that the aggregation of elementary performance measures into an overall measure allows a single performance information to be estimated (Berrah and Clivillé, 2007; Bhagwat and Sharma, 2007; Sharma and Bhagwat, 2007). Meanwhile, there is also a recent inclination among researchers to recommend the use of Kaplan & Norton's (1992) Balanced Scorecard (BSC) as a measurement tool in the evaluation of supply chain performance (e.g. Bullinger, Kuhner and Van Hoof, 2002; Kleijnen and Smits, 2003; Park, Lee and Yoo, 2005; Sharma and Bhagwat, 2007).

Statement on Management Accounting (SMA) on SCM and the Role of Accountants

The problem of designing a supply chain performance measurement system could be addressed by the accounting profession, particularly by employing the various tools and techniques of management accounting approaches within the SC context. Management accounting could offer significant contribution in the management of SC with the ultimate aim of improving business performance. As noted earlier, researchers argue that management accounting could play an active role in SCM such as reporting and improving financial and non-financial performance management across the supply chain, as well as using various management accounting tools at different stages of the development of supply-chain relationships such as lifecycle costing, open-book accounting, target costing and quality costing (Cullen and Metcalf, 2006). They further suggest that the realm of Supply Chain Accounting should include facilitating trust among collaborating organizations, modeling supply chains and logistic operations, facilitates capital investment decisions across the supply chain and so on.

A more comprehensive guideline on the role of accountants in SCM processes is provided by the Institute of Management Accountants through a series of publications of Statements on Management Accounting (SMA). In particular, a statement entitled "Implementing Integrated Supply Chain Management for Competitive Advantage" proposes several specific roles and responsibilities for financial practitioners including accountants. Among the roles stated are providing current estimates of supply chain costs and performance against defined customer expectations, developing new measurements, both financial and non-financial, to assess the degree of improvement of the supply chain and providing management with timely reports that isolate current performance shortfall and so on. These standards serve to facilitate accountants in dealing with integrated supply chain systems implemented by companies.

Management accounting information serves as a potentially effective avenue to provide inter-organizational supply chains with such information regarding efficiency and tasks performed as well as about the performance of managers and operating units (Ramos, 2004). Management accountants could offer their expertise where management accounting techniques are widely adopted in supply chains such as activity based costing, balanced scorecard, value chain analysis and total cost of ownership. Yet, there are also findings from previous studies which suggest skepticism on the role of accounting information in strategic alliances formed by SC partners (e.g. Chua and Mahama, 2007). This is further supported by Bowersox, Closs, Stank and Keller (2000) who envisage that the way forward for SCM is Value Based Management, thereby shifting the focus from traditional management accounting concepts and tools towards more powerful techniques of value creation.

Methodology

The case company chosen for this study is an automobile manufacturing company operating in Malaysia. It is part of a larger group of companies whose primary business is in the designing, engineering and manufacturing of automobiles. The firm was chosen since it is expected that the maturity of SCM practices in this industry is relatively high compared to other industries and thus, it provided a good illustration of the key issues that may reflect the implementation process of SCM. A case study method within the qualitative methodology was chosen despite the limitations in terms of statistical generalization. In general, qualitative research has been commonly embraced in social science research, however its use in Management Accounting research is still in its infancy. By tradition, the quantitative methodology appears to be the common methodology being adopted in such research.

Attention towards Management Accounting based field research was noted to have begun since the 1980s (Perera, 2005). Nevertheless, recent trends show a growing number of researchers in this field appear to be advocating the use of qualitative field research in examining research issues. For instance, Ahrens & Chapman (2006) highlights the potential contribution of qualitative research to Management Accounting area by discussing the role of theory, method, methodology and knowledge gains in such research. Further, the literature review revealed that various practices fall under the ambit of SCM practices. However, many of the supporting studies were done in developed countries such as the US or the UK, and less is being conducted in developing nations particularly in Malaysia. Thus, a case study was considered appropriate to investigate the existence and relevance of these practices in Malaysia. In addition, the case study method offers ample opportunities for an in-depth observation and analysis of the key SCM processes.

Data Collection and Analysis of Results

All issues were addressed mainly through the use of semi-structured interviews with the key personnel of the company who is actively involved the processes of supply chain management of this company. Before conducting the interviews, respondents were promised confidentiality to facilitate candid responses. A semi-structured interview protocol was used as a guideline during the interviews. However, respondents were allowed to develop their own explanations, and cues were taken from these for subsequent discussions and probes. The interviews lasted on average of one hour per session. The data was recorded and subsequently transcribed. Other sources of evidence were examined including public documentation such as documents from Internet-enabled company website and annual reports. The qualitative data analysis used pattern matching and coding of constructs to analyze the interview transcriptions and archival data for consistent patterns and themes relevant to the study.

Findings

The interviews underscored several of the key findings regarding SCM practices, the performance measurement used and the related role of accountants within the selected case company. These are explained further in the following sections.

Case Company Profile

The case company referred hereafter as AMB¹ is a local automobile manufacturer in Malaysia which utilizes the concept of integrated manufacturing facilities involving casting and foundry, machining, stamping, painting and assembling capabilities. Apart from manufacturing cars for local and overseas market, the company aims to expand further its operations internationally, mostly through technology transfers and sale of engineering capabilities. Under the Malaysian National Automotive Policy (NAP), the company was originally set up to spearhead the automotive industrialization process while acquiring and upgrading technology and industrial skills within the industry. It was also responsible for strengthening the international competitiveness of Malaysia's industrial capabilities.

In the case of AMB, the manufacturing process consists of foundry works, casting of cylinder blocks, tooling, machining and assembly. In the past, the company used to rely on the Japanese technology through its collaboration with a well established car manufacturer in Japan. Later, the company started to be an independent local car maker based on its own Research & Development expertise. While previously under the agreement with their Japanese partner the company could only alter the aesthetic features of the car, the company is now able to fully design the car including the functional aspects.

SCM Practices

The importance of maintaining a seamless flow of supplies in the auto industry has led the company to focus on managing its supply chain efficiently and effectively. Since the company began operation, it has recognized the importance of managing the supply chain by having proper planning and control while keeping a good working relationship with its suppliers. In this company, most of the SC planning and control activities are executed by the Production Planning and Control department. More specifically, the SCM practices at the case company includes the following elements.

Supply Chain Planning Practices

The effectiveness of SCM processes in the case company relies to a certain extent on the planning function of the management. According to the interviewee, most of the SC planning function was done by the Production Planning & Control department. It is responsible for plant capacity planning, production planning, material requirement, inventory planning, order processing, materials handling and so on. Output from the planning activities is in the form of information generated and channeled to two parties: both internal and external users. External suppliers will receive orders in the form of forecasts figures which are used as a basis to supply materials. Vendors will be informed on the frequency of delivery and the delivery schedule. Here, sometimes conflicts do arise, specifically when the company implements JIT which requires frequent deliveries to the manufacturing sites.

Vendors, on the other hand, may prefer fully utilized transportations as opposed to partial shipments. Internally, the information is shared with the Logistics department for arrangements of parts coming into the factory. The Logistics department would oversee the physical flow of incoming materials and plans to avoid congestions at the delivery bays. Other problems regarding incoming material such as late delivery and lack of quality will also be dealt with by the Logistics department there on. An issue faced in the planning process is the reliability and accuracy of forecasts due to the uncertain nature of market demand.

Relationship with Suppliers

The nature of the relationship between AMB and its vendors has somehow evolved from that of transactional-based to a more long term partnership-based relationship. This is evident from the acknowledgement of vendor as an important stakeholder to the company as documented in their Annual Report. Furthermore, the company works together with their vendors to solve problems should they arise. As commented by the informant:

“...to have good purchasing (relationship), we have to communicate with them. If there is a problem, we try to find out what cause the problem...this is where we have to educate the vendors...”

In implementing the Just in Time manufacturing approach practiced by AMB, vendors are expected to maintain a high degree of reliability and accuracy in the delivery of incoming materials. Any deviation from the plan would unnecessarily disrupt production which would cost the company in monetary terms. In order to avoid problematic vendors, the company put real effort in educating the vendors particularly in keeping with time of deliveries. The company also sought the services of third party logistics to ensure such timely deliveries. A firm relationship with the suppliers is also warranted in order to effectively share information within the company's supply chain. For instance, the JIT approach requires the company to maintain minimal inventory within the manufacturing facility. In order to accomplish this, the company implements “synchronized” parts supply process. This involves automatic replenishment of items once parts enter into the assembly line. To a certain degree, this requires that the company and its vendors share sensitive information such as materials requirement.

As part of the risk management effort, the sourcing strategy of AMB requires the practice of multi-sourcing. At the same time the company believes that having fewer numbers of suppliers is a more cost effective approach to manage suppliers. By managing a smaller list of vendors, many of the problems associated with vendors could be reduced. Parts will no longer be supplied as individually packaged but rather as sub-assemblies. According to the interviewee, the company can benefit in terms of reduced paperwork and could focus on the sub-assemblies rather than individual parts.

Communication

Effective communication was regarded highly in this company. Not only has communication played an important role in day-to-day activities within the company, it was also considered essential between the company and its suppliers. In particular, whenever there were problems in the delivery of supplies from vendors, the company reacts proactively by communicating with suppliers in order to determine the root causes. Through communication with suppliers, the company was able to tackle many SC problems by knowing what caused the problem and finding ways on how to solve them. Most of the communication with suppliers was done by the procurement staff who handle vendor management issues.

Trust

The findings also suggest that trust is an essential element in SC relationships. In managing the relationship with suppliers, the company placed high importance to the issue of trust between SC partners as illustrated in the following comment:

“In any business, you have to trust the suppliers. If there is no trust, then it is better not to do (business) at all. To me it is very simple, if you don’t trust them, it is better to cut off the relationship right from the beginning”.

Likewise, the company aims to create value by earning the customers’ trust through quality products and innovation. Therefore, trust plays a pivotal role in the company’s relationship with both its upstream and downstream partners.

Evaluation of Supply Chain Performance

Even though the company does not seem to incorporate any formal supply chain performance measurement systems, it does have some form of control over the operations by means of related KPIs. The management team is responsible to achieve those targets as it has direct implications on the production line. Any deviations above or below the target would necessitate immediate counter-measures in order to avoid problems. They have to balance between over or under producing. Otherwise the vendors would be at a disadvantage since over-production means pulling in raw materials at a faster rate than planned. In contrast, under-production could lead to unnecessary inventory build-up by the vendors. For instance, the interviewee commented that:

“At the end of the month it (the deviation) must be in the range of plus minus a single digit, not more than that. If more than that, then maybe vendor will have problems because we will pull in the raw materials much faster. Consequently, in the following month, again there will be problem. If we produce less, vendors will also be unhappy because they are storing higher stocks ... so all the planning and preparation must be ready at the agreed schedule by everybody”.

Several measures have been used by the company to evaluate supply chain performance. Among the measures communicated via the interview data is the Manufacturing Efficiency (ME) ratio based on three processes, i.e., Plan, Produce and Deliver. This ratio indicates how well the company adhere to the plan and whether the targets have been achieved. Another measure used by the company is in terms of inventory control. It is important for the finished cars to be delivered to the distribution centers within the stipulated time period. For example, the longest time a finished car waits in the manufacturing site before being delivered is, on average, 3 days. In addition, attention is also directed at the accuracy of information and documentation related to inventory. This is important because any errors could cause inefficiencies, as commented by the interviewee:

“we need to make sure that the parts number in the system is correct when keyed in. Otherwise the system will reject, and once rejected, that would cause a problem. If you miss even one key number, the documentation will be incorrect ...”

Cost control is another measure of the performance of the supply chain management of the company. This relates to how well the company controls its cost especially in terms of container charges. When materials or parts are imported, these are usually stored in warehouses before being pulled in to the manufacturing facility. The container charges tend to be over the limit when materials and parts could not be stored immediately for example due to poor conditions of the warehouses. Thus, these factors need to be monitored as well. In terms of financing, the company also imposes a KPI on its financing of materials activities. The aim is to achieve a smooth flow of funds between the company and its vendors. By the end of each month, all the relevant documentations need to be done so that the accounts could be settled. Apart from maintaining efficiency of payment, it could also serve as a good rapport with vendors.

The Contribution of Accountants in SCM Processes

In general, the accountants were involved in the provision of information for the management as well as the Board of Directors.

“We report on the performance of the company, in terms of financial, the profitability, product margin, the forecasting, the stock trend reduction, and the variances...So we have a report, every quarter. We report to the board, every month (and) we report to our internal (management)...”.

Interviewee

This finding demonstrates that the accountants have limited involvement in SCM activities. According to the interviewee, the accountants play a ‘superficial’ role in SCM activities. Their limited responsibilities include inventory control and profitability, and variance reporting. Occasionally, inputs from the accountants are also required for the development of new products, especially in solving the costing issues. Although they were substantially responsible for the payment to suppliers and verifying data in cost reduction activities, there was little indication that accountants participated in ‘deeper’ involvement in SCM processes as suggested by the literature. Their potential contribution in SCM such as facilitating trust between SC partners, administering open-book accounting and evaluation of SC costs and benefits were far from realized. To that extent, there is still relatively limited participation of the accountants in the SCM processes in the sense that they were not as critically involved in managing SCM activities as expected. This is perhaps due to the lack of visibility of the accountants among management as potential contributors in improving SC performance.

Conclusion

The current study indicates several significant findings. First, the evidence from AMB demonstrated that SCM practices are already implemented throughout the supply chain though not necessarily in a formal manner. For instance, proper SC planning would ensure a seamless flow of supplies from suppliers and avoid delivery problems. In addition, the company has shifted its focus to a partnership-based relationship with suppliers with the aim of keeping a good relationship with them. The evidence in AMB was also consistent with the suggestions from researchers regarding the pivotal role of trust in the relationship between SCM partners. Trust was construed as a major ingredient in SC partnership especially in enabling more effective communication and information sharing such as on demand forecasts and in resolving emerging problems. It also promotes a winning solution to both buyers and suppliers along the chain. Further, the company recognizes the need to educate vendors in order to maximize the benefits of JIT manufacturing while at the same time moving towards a smaller supplier base.

Second, the evaluation of supply chain performance as practised by the chosen case company did not indicate that any formal SC performance measurement system exists. Rather, certain KPIs and other measures are used by the companies for their SC evaluation which are mostly non-financial in nature. This finding is not consistent with the suggestions by proponents of SCM (e.g. Holmberg, 2000; Brewer & Speh, 2000) who advocate the use of a holistic approach of performance measurement and a mixture of financial and non-financial measures. Third, this study also investigates the role of accountants in an attempt to explore the contribution of management accounting in the SCM area particularly on how they are involved in the SCM activities. Interestingly, contrary to the literature (e.g. Ramos, 2004; Seal et al, 1999), the accountants' participation in the SCM field was rather limited. For example, accountants were not directly involved in the generation of information in assessing the effectiveness of the supply chain as recommended by the literature. Hence, there is still a gap between what the profession claims to contribute and the actual participation of accountants in the SCM processes.

Nevertheless, these findings should be treated with caution, since more robust empirical means than those employed here are still needed to provide further empirical evidence in generalizing these findings in a population. Further investigation into the differences in SCM practices across a broader range of industries is recommended in order to develop our understanding of how SCM successes are affected.

Note

¹ The name of this company is withheld to maintain confidentiality

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