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**THE RELATIONSHIP BETWEEN ERP SYSTEM'S
FUNCTIONALITY AND SUPPLY CHAIN MANAGEMENT
PERFORMANCE**

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ABSTRACT

PURPOSE- *The purpose of this work is to explore the relationship between Enterprise Resource Planning (ERP) system's functionality and Supply Chain Management (SCM) performance.*

DESIGN/METHODOLOGY/APPROACH- *The questionnaire survey was posted to the Malaysian manufacturing companies that are using ERP system. The respondents of this study were the MIS or IT executives. A total of 80 usable responses was received and used in the analysis.*

FINDINGS – *The findings of this research indicated that there is a positive and significant relationship between ERP system's functionality i.e. (integration, material management,*

production planning, and controlling), and SCM performance. The workflow management, however, does not have a significant relationship with SCM performance.

RESEARCH LIMITATIONS/IMPLICATIONS- *This research focused only on Malaysian manufacturing sector, where future research could cover service sector in order to generalize the finding for all Malaysian companies.*

PRACTICAL IMPLICATIONS- *The successfully implemented ERP system can contribute toward enhancing SCM performance through integration of internal business processes, enhancement of information flow among different departments inside the company, improvement of the company's relationships and collaboration with outsourcing suppliers, customers and other supply chain partners.*

ORIGINALITY/VALUE- *The significant relationship between ERP system's functionality and SCM performance could encourage many companies to implement ERP system and contribute in technology diffusion between Malaysian companies.*

KEY WORDS

Enterprise Resource Planning (ERP) System, Supply Chain Management (SCM), Functionality.

INTRODUCTION

In the last few years of the twentieth century the world witnessed tremendous changes and developments in technology, particularly in Information Technology (IT). The improvement in IT in profound ways has changed the global economy in many ways which eventually affected the growth of economy in the world. In the past decade, these changes in the global economy

have significantly redefined the way business being conducting. The growth of the Internet has also significantly affected every part of Information Technology, including Enterprise Resources Planning (ERP) systems, which facilitates the communication between business companies all over the world (Rashid *et al.*, 2002).

On the other hand, business management has entered the era of networking competition which moves the competition from local to global business environment and from company against company to that of supply chain against another supply chain. Currently, competition is not measured only by individual company performance but also in terms of supply chain performance. This competition of supply chain performance will increase the pressure on companies to meet customer demands as well as to achieve customer satisfaction and loyalty (Hsu, 2005).

The current changing business environment with fierce competition in the global market, intense pressure to meet challenges, the need for better and cheaper products with fast delivery, wide spread information networks, globalization, and the proliferation of e-commerce and e-business, are putting on an increasing demand for companies to build a strong information system infrastructure and to keep up-to-date with new technologies, such as ERP systems, in order to remain competitive in the global economy (Palaniswamy & Frank, 2000).

Today companies are constantly experiencing domestic and foreign competition, and they are seeking for robust technologies that can enable them to achieve better control over their business performance and attain cost reduction. There is also a need to improve quality standards as well as enhancing customer services to enable companies to compete in local and global marketplaces. Companies are also continuously struggling to reduce costs and response time, increase business profits, and improve their market share in order to gain a competitive advantage in the global economy. These great challenges also include managing stocks,

distributions, services, customers, sales, workflow, operations, and materials (Spathis & Constantinides, 2003).

In fact, the main tasks for the management in the present environment include efforts toward reducing costs, improving profits, and producing quality and reasonably priced products in order to enable their companies to survive in the present global competition. Therefore, companies need a paradigm shift in the way they conduct their businesses from the traditional business operations to new technological solutions in order to remain competitive in local and global marketplace competition (Tarn *et al.*, 2002).

This competition encourages companies to use new technologies, tools, and sophisticated systems and software in order to respond effectively and efficiently to the new business environment. Such a paradigm shift could help them cope with their rivals and eventually enhance their competitive advantage in the business environment (Rahman, 2004).

Companies are beginning to realize that in order to survive in the global business environment they must improve not only their organizational efficiency, but also their whole supply chain. This is because competition today is not limited between companies only, but it has extended to be among their supply chains as well. These reasons force many companies to keep up to date and make large investments in developing and implementing better technologies and systems such as ERP systems (Davenport & Brooks, 2004).

ERP system could be a useful tool for companies to build a strong information systems infrastructure and to enable the management to undertake better decision-making based on accurate and on-time information. Furthermore, these systems improve product quality and customer responsiveness and also enhance information sharing and information quality among different departments inside the company, as well as extend beyond the company's boundaries to suppliers, customers and other partners in the supply chain. Ultimately, this will enhance

overall business performance, particularly Supply Chain Management (SCM) performance, help to achieve competitive advantage in the global economy, and improve long term profitability (Klaus *et al.*, 2000; Akkermans *et al.*, 2000; Hsu & Chen, 2004).

LITERATURE REVIEW

ERP System

By the late of 1980s and early 1990s many companies were suffering from an enormous IT integration problems and were in need for an absolute software solution that can integrate different functional areas and at the same time allow these functional areas to share from a single and centralized database without any data inconsistency problems and without losing flexibility. Therefore, software vendors established ERP system in the mid of 1990s in order to solve integration problems, make effective business solution, and provide companies with all IT needs under a single software system (Loonam & McDonagh, 2005).

ERP systems were emerged in the beginning of 1992, however, in the recent years ERP system has become one of the most well known business software in the marketplace and an essential part of everyday IT investments for many companies that believe ERP systems will provide solutions for their IT problems and therefore provide effective online transactions with the current e-business era. Moreover, one of the significant and global developments of IT is the broad acceptance of ERP systems by many companies worldwide which reached today to consider ERP system as the most rapid growing system in operational area (Lopes, 1992; Zhang *et al.*, 2004; Molla & Bhalla, 2006).

According to O'Brien and Marakas (2008) "*Enterprise Resource Planning is a cross-functional enterprise system driven by an integrated suite of software modules that supports the basic internal business processes of a company. Basically, ERP system is the technological backbone of e-business, an enterprise-wide transaction framework with links into sales order processing, inventory management and control, production and distribution planning, and finance*"

This definition reveals that ERP system is an effective enterprise-wide information system that tracks customers, process orders, manage inventory, pay employees, and provide general ledger, payable, receivables and other necessary functions that are related to accounting, finance, marketing, human resource, and other departments in order to achieve optimum improvement in business performance as well as increase the management of information system within the company (Kroenke, 2009).

In fact, ERP is software for business management systems which integrates all business functions, processes, and information between different departments inside the company. This business software system will allow companies to automate and integrate the majority of their business processes, share common data and practices across the entire enterprise, and produce and access information in a real-time environment (Lopes, 1992; Deloitte, 1999).

This integrated enterprise-wide system will automate the main business functions such as manufacturing, human resource, finance, as well as supply chain management and eventually enable companies to streamline their operations and processes (Gibson *et al.*, 1999). As a conclusion from Lopes (1992) ERP system is better, faster and more economical solution for business processes in the new information system paradigm. However, ERP system is an enterprise-wide integration of data, information, as well as business processes.

ERP System Functionality

The origin of ERP system was in manufacturing providing only production planning functionality, and afterward in the mid of 1990s, the system further expanded to contain functionality such as financial management, order management, assist management, and human resources management. In the recent years ERP systems functionality increased to include marketing automation, e-commerce, sales, and supply chain systems. Currently, the major ERP systems applications contain financial applications, human resources applications, and manufacturing applications that provide multiple functionality (McAdam & Galloway, 2005).

ERP systems functionality can cope with different functional area, such as, sales, accounts receivable, accounts payable, engineering, inventory management, production, purchase, quality management, human resources, production and distribution planning. Basically, ERP systems functionality competent to integrate, optimize, and coordinate physical, cash, and information flow in the above mentioned functional area as well as within the entire supply chain of the company (Shankarnarayanan, 1998; Zheng *et al.*, 2000).

Several modules in ERP system provide different functionality and support different business functions such as manufacturing, inventory management, personnel management, storage management, financial administration system, marketing and order processing. These modules are combined through a common data model and database system and are also integrated across functional support which indirectly supports the integrations among different business functions and ultimately provide integration functionality (Hsu & Chen, 2004; Klaus *et al.*, 2000).

For example, SAP R/3 package contains core modules where each module provides a particular functionality such as, materials management, asset management, production planning, plant maintenance, project system, controlling, quality management, industry solutions, financials, human resources, sales and distribution. Each of these modules formed from sub-modules, for

instance the financial module includes sub-modules like accounts payable, accounts receivable, and general ledger. (Parr & Shanks, 2000).

Typically, when companies decide to implement ERP systems, the first decision will be related to the selection of modules that the company needs, because usually most of companies select some modules that they need them in order to provide specific functionality that fit to the company requirements. Implementing all modules of ERP system is not affordable by many companies and this is because of the large sum of money that the company needs to pay in order to implement the whole package of ERP system and then obtain all functionality of the system (Parr & Shanks, 2000; Sheikh, 2003).

Therefore, companies usually implement some modules of ERP system and not all modules. The selection of the modules depends on the requirement of the company and on what functionality they need to be provided within the company as well as on the need of specific modules that can fit to particular requirements and therefore satisfy the business objectives (Parr & Shanks, 2000; Sheikh, 2003; Rolland & Prakash, 2001).

For instance, when companies need to improve their financial performance they implement modules related to finance and when they need to improve supply chain management performance they implement modules related to SCM (SAP, 2006). However, this study focuses on modules or functionality that can contribute in enhancing the supply chain management performance such as, integration, production planning, controlling, materials and workflow management, procurement and distribution.

This research aimed to improve supply chain management performance through the successful usage of ERP system functionality. Therefore, the selection of the dimensions of this study was based on the functionality of ERP system that contributes in improving supply chain management performance. Five functionality of ERP system were selected and that was based

on extensive review of literature, suggestions from ERP vendors such as SAP and Oracle, and finally on the feedback obtained from some of Malaysian manufacturing companies that are using ERP system such as Proton, Intel, and Nippon, where eventually lead to the selection of five functionality that contribute towards improving SCM performance. The functionality of ERP system that were selected as the dimensions or the independent variables of this study are integration, production planning, controlling, materials and workflow management, procurement and distribution (Davis, 1998; Parr & Shanks, 2000; Sheikh, 2003; SAP, 2006).

ERP System Functionality and SCM Performance

Davenport and Brooks (2004) noted the large impact of ERP systems on SCM in helping companies to share information with other partners. Upon receiving an order from their customer, their supplier will immediately replenish the raw materials based on the information they received. Therefore, in order to monitor and collect information within the supply chain, ERP system is needed with the additional external functionality and devices of SCM and Manufacturing Execution Systems (MES).

The main philosophy of SCM is to have the right product in the right place, at the right price, at the right time, and in the right condition. Therefore, companies need not only to flow information within the company but also they need to share this right information with the right supply chain partner in the right time. In order to achieve these goals, organisations need an information system, such as ERP system, to facilitate the synchronization of the entire supply chain and provide timely information to all supply chain partners in order to assist their decision making and eventually attain customer satisfaction. ERP systems are generally conceived as an important precursor to SCM performance and a very useful tool for its improving (Zheng *et al.*, 2000).

With ERP systems functionality, companies are able to integrate all functional units, standardize and manage information sharing within their entire departments and then extended it to suppliers and customers in order for suppliers to expedite the delivery of necessary raw materials and also in order for customers to place an order faster and smoother. For example, Northern Digital Inc. implemented ERP system from Intuitive Manufacturing Systems which provided a level of ERP system functionality that could immediately improve inventory management, expandability of entire system, and flexibility in the whole supply chain in order to support the company in current competitive business environment. After a successful implementation of ERP system the revenue of the company has increased from \$10 million to over \$20 million (Turban *et al.*, 2008).

There is a wide consensus among many authors on the importance of ERP system in the improvement of supply chain performance. For instance, Wieder *et al.* (2006) found that, there are positive impacts of ERP systems on supply chain performance. Zeng and Pathak, (2003) stated that, there are several records of success indicating that the integration of supply chain can enhance and improve the performance of the supply chain to be effective and competitive in the global business environment.

Moreover, Hitt *et al.* (2002) pointed out that, investment in ERP systems improves productivity and business performance. Cotteleer (2002) found that, ERP systems able to improve operational performance within the supply chain. Themistocleous *et al.* (2002) come up with a conclusion as ERP systems supported SCM since long time.

On the other, there is hand a large argument among several authors in ERP literature about the section or the area that ERP system improves inside the company as well as within the whole supply chain. Rom and Rohde (2006) argue that, ERP systems can support data collection and management accounting better than other systems such as strategic enterprise management

system. Spathis and Constantinides (2004) noted that, ERP system improves flexibility in information generation, as perceived by many companies, and it is able to decrease operational costs and cycle time and thus increase customer satisfaction and loyalty. Tarn *et al.* (2002) pointed out that, ERP systems able to expedite information sharing within SCM in order to enable closer cooperation among supply chain partners and to reduce the cost of transaction.

Moreover Akkermans *et al.* (2000) found that, ERP systems contribute toward enhancing SCM in technical areas such as standardization, transparency and globalization. They also found that, there is a close interrelation between ERP and SCM. Madu and Kuei (2005) stated that, in order to support SCM effectively, companies need to implement ERP system. A conclusion can be drawn from the above discussion as ERP system able to support and improve all departments inside the company as well as the entire supply chain of the company.

In order to improve supply chain performance ERP system is needed where companies can integrate all their business processes through breaking the barriers among different functional departments inside the company in order to be more responsive and flexible and at the same time avoid repeating the same task. This is could be possible because ERP systems contain single and integrated database that prevents any data inconsistency problems and smooth the flow of information among supply chain partners (Chuang & Shaw, 2005).

The overall supply chain performance could be improved through the channel coordination, information sharing, operational efficiency, and integrated communication within the supply chain. ERP system provides integration functionality for better communication and coordination within the company and its supply chain. The success of ERP system and the supply chain highly depends on the process of integration achieved in the company and this is could be achieved smoothly with the core functionality of ERP system which provides web linkage, facilitates Electronic Data Interchange (EDI), and integrates the entire supply chain in order to

support effectively the company's supply chain activities (Goodhue *et al.*, 1992; Lee *et al.*, 1997; Olson *et al.*, 2005; Park & Kusiak, 2005).

According to a study conducted in Thailand on Thai-owned and multinational companies, ERP systems able to improve scheduling, tracking, and managing inventories and raw materials. It also able to save costs, improves business processes and internal integration, reduce human error and staff costs, enhance visibility and accessibility to data, and increase responsiveness (Arunthari, 2005).

SCM performance

SCM performance defined as the procedures to measure the effectiveness and efficiency of the supply chain, and that includes the measures of cost, quality, time and customer responsiveness, and flexibility (Neely *et al.*, 1995; Beamon, 1999).

Davenport and Brooks (2004) noted that SCM contributes toward the reduction of inventory and working capital. It also makes a close relationship between suppliers and customers. In fact, SCM is a coordination and cooperation between suppliers and customers to share information and exchange goods and services.

SCM contains activities that can facilitate the movement of goods and the flow of information from the raw materials to end customers. It helps companies to improve the relationship between suppliers and customers in order to produce a high quality product at a lower cost. This is to gain a competitive advantage in the global market (Chuang & Shaw, 2005).

In the present economy SCM considered as one of the most important and powerful management strategies that has significant impact on business performance. However, when companies place SCM in their business model they can provide products with premium quality

at low price in order to attract customers. In fact, SCM is an important component to extend and link with suppliers, distributors and retailers in one distribution network whereby companies can obtain the best products at the lowest cost and thus increase profitability and gain a competitive advantage in the business world (Chou *et al.*, 2004; Zheng *et al.*, 2000).

In fact, SCM facilitates the movement of products through the supply chain, managing the associated information flow, organizing the business relationship with customers and suppliers and other partner in the supply chain, and creating customer value to achieve customer satisfaction and loyalty (Burca *et al.*, 2005).

On the other hand, SCM can be perceived through managing upstream and downstream operations, which resulted in reducing the operational costs in order to improve the profit margin, and in delivering the products to the market in order to reach the customer on time (Sundaram & Mehta, 2002). The goals of SCM are to reduce uncertainty and risks related to the supply chain, and this is can contribute in decreasing inventory levels and cycle time, improving business processes, and enhancing customer service, and finally increase profitability and enhance competitiveness of the company (Turban *et al.*, 2008).

In 2000, a survey has been conducted on large manufacturing companies in USA indicated that, companies with a solid SCM are able to reduce their operating costs, inventories, product life cycle and cycle time tremendously, and that will certainly increase cash flow, working capital, efficiency of transactions in supply chain, customer services and on time delivery (Zheng *et al.*, 2000).

However, SCM considered as one of the most important success factors in the future of business environment, meanwhile managing the entire supply chain are very challenging and not an easy task, therefore companies begun to consider and redirect their efforts toward information

systems, such as ERP systems, in order to improve their SCM performance and give them the opportunity to gain a competitive advantage in the global economy (Lambert & Cooper, 2000).

Zheng *et al.* (2000) pointed out that, the main five parts of any supply chain is plan, buy, make, move, and sell. SCM contains applications such as, manufacturing planning, demand planning, distribution planning, transportation management, warehousing management, performance management, production scheduling, freight payment, capacity planning, customer clearance, sourcing and procurement, and finally supply chain optimization.

Therefore, the success of supply chain depends on how efficient and effective each part and application of the supply chain, and also on how well these parts and applications integrated with each other in order to assist the entire supply chain to move smoothly and efficiently (Zheng *et al.*, 2000). ERP systems are able to integrate all parts and applications of the supply chain, and also able to facilitate the efficiency of each part and application in the supply chain.

In order to create an effective and successful SCM, it requires cross-functional integration, as well as many companies need to integrate the whole supply chain, which includes suppliers, warehouses, factories, distributors, and retail outlets, and provide cooperation between all supply chain partners through planning, coordination, and information sharing which is critical to achieve successful and effective operation of supply chain (Stevenson, 2002).

In fact, the key to achieve effective SCM is accomplishing customer demand on time. However, there are several steps must be taken in order to attain an effective supply chain that includes developing a strategic objectives and tactics, creating strategic partnerships, coordinate activities with suppliers and customers, and finally organize planning and execution within the supply chain (Lambert & Cooper, 2000).

These require implementation of an information system that facilitates and expedites the exchange of data and information between supply chain partners, integrate functional units, and allow everyone in a company to access to a single database and use the same data and

information without any data inconsistency problems. The suitable information system that can provide all the above mentioned characteristics is the ERP system.

ERP could be an effective system that assists companies in creating effective and successful supply chain management. In fact, ERP systems introduced to integrate all functional units of a company and its supply chain in order to make it in one system. Therefore, all data and information related to SCM will be accessible and retrieve from one system. The ease of access to one system from various functional units and the advancement of IT and computing research have resulted in enhancement of SCM performance (Tjoa & Raman, 1999; Rashid *et al.*, 2002). ERP systems include SCM module which contains sub-modules for materials procurement, material transformation and distribution of products to deliver the right product to the right place at low price in order to gain customer satisfaction and loyalty as well as achieve effective and successful SCM performance (Tjoa & Raman, 1999; Rashid *et al.*, 2002).

RESEARCH MODEL AND HYPOTHESIS

This research attempts to investigate the relationship between ERP system functionality and SCM performance. The theoretical framework of this study was developed based on the Socio-Technical theory. This study was designed in order to investigate the impact of ERP system SCM performance.

Based on the extensive literature review on ERP system and SCM, and the problem statement that presented in chapter one, as well as the Socio-Technical theory, an integrated theoretical framework has been developed in order to investigate the relationship between ERP system functionality (integration, production planning, controlling, materials & workflow management, procurement & distribution) and SCM performance.

Based on the theoretical framework, the hypotheses for this research dimensions were formulated and developed in order to test the relationships between ERP systems functionality and SCM performance and finally achieve the research objectives. Therefore, the following hypotheses were developed:

H₁: *There is a relationship between Integration functionality and SCM performance.*

H₂: *There is a relationship between Materials Management functionality and SCM performance.*

H₃: *There is a relationship between Production Planning functionality and SCM performance.*

H₄: *There is a relationship between Controlling functionality and SCM performance.*

H₅: *There is a relationship between Workflow Management functionality and SCM performance.*

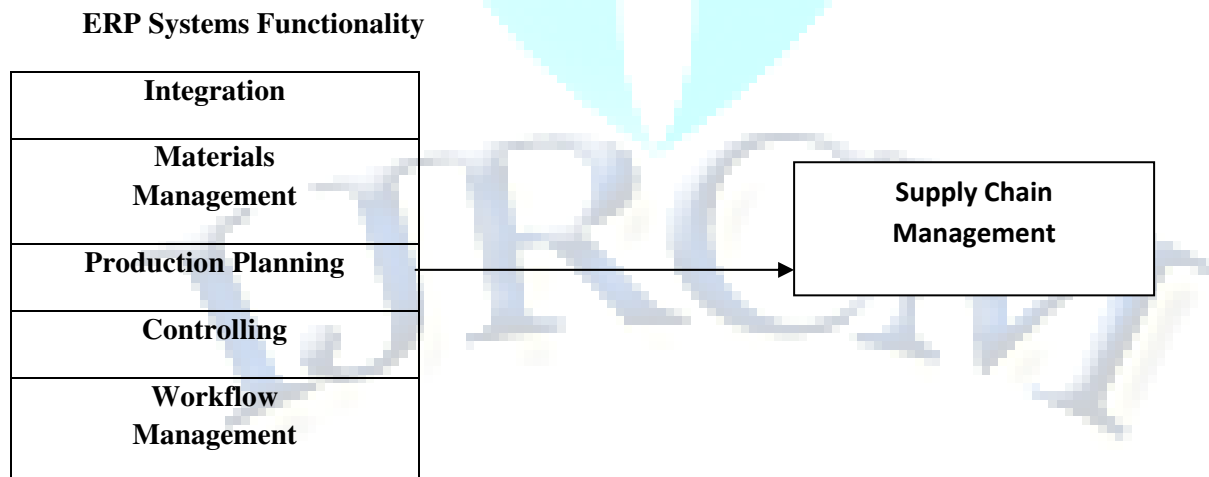


Figure 1: The Research Model.

METHODOLOGY

The questionnaire survey of this study was posted to the Malaysia manufacturing companies that are using ERP system. The questionnaire focused on the functionality of ERP system, namely, integration functionality, material management functionality, production planning functionality, controlling functionality, and workflow management functionality, with respect to SCM performance. The respondents were asked to rate the degree of agreement for each functionality of ERP system as well as for the SCM performance using five-point Likert-type scale rating from 1=strongly disagree to 5= strongly agree. The target respondent in each manufacturing company was the MIS or IT executive or the person in charge for ERP system. The population of this research is the Malaysian manufacturing companies that are using ERP system listed in Federation of Malaysian Manufacturers (FMM) which are about 200 companies, from these 200 companies 132 were selected randomly in order to be the sample of this research.

The instruments for ERP systems functionality were adapted from different sources such as (Spathis & Constantinides, 2004; Tadinen, 2005; Vanderfeesten & Reijers, 2006). On the other hand, the instrument for Supply Chain Management variable was adapted from (Zhang *et al.*, 2006; Beamon, 1999; Neely *et al.*, 1995; Shepherd & Gunter, 2006; Li *et al.*, 2005).

RESULTS AND DISCUSSIONS

The usable response rate of this study was 61%, in other words 80 usable questionnaires were received from Malaysian manufacturing companies that are using ERP system. Majority of the companies' ownership were of local rating 58.8%, and 41.2% were of foreign ownership. The size of the companies in term of employees' number shows that the majority of respondents companies were having more than 150 employees constituting 72.5%. The geographic scope of most companies was worldwide rating 46.3%. In term of customers' and suppliers' number,

more than half of the respondents were having more than 150 customers rating 53.8% and more than 150 suppliers rating 51.3%. 31.3% of the target companies selected SAP as the provider of their ERP system. In this research the majority of companies implemented and currently uses ERP system since more than 5 years rating 47.5%. The main two reasons behind adopting ERP system in most of the companies was to improve supply chain management performance and overall business performance rating 47.5% and 43.8% respectively.

The coefficient alphas for the construct was computed in this research through the reliability test in SPSS and presented in table 1. In this research, the Cronbach's Alpha of the measure was highly reliable since it is above the limit of acceptability which is 0.70 (Cronbach's Alpha > 0.70).

Table 1: Reliability Analysis

<i>Stat istics for</i>	<i>Coefficient Cronbach's Alpha</i>	<i>M e a n</i>	<i>V a r i a n c e</i>	<i>Std . De viation</i>	<i>No. of Item s</i>	<i>N o. of C a s e s</i>
Scale	.889	1 4 4 .5	1 6 1 .7	12. 7	37	8 0

A five-point Likert-type scale rating from 1=strongly disagree to 5= strongly agree was used for measuring all the items of this study. According to table 1, the mean values for ERP system functionality i.e. integration, material management, production planning, controlling, and workflow management, are 3.99, 3.92, 3.94, 3.78, and 3.88, respectively which are above the average. The standard deviation ranges from 0.45 to 0.77. These results indicate that the ERP system's functionality worked seamlessly and smoothly in the manufacturing companies. Integration functionality considered as the main functionality of ERP system, which score the

highest mean value among the ERP system functionality that is 3.99, indicating that there was very high integration between several business units in the companies' supply chain, and also between software applications across companies' supply chain. Eventually, SCM performance obtained mean value of 3.89, and standard deviation of 0.39, which shows improve in the SCM performance. The summary of descriptive analysis presented in the following table (2).

Table 2: Descriptive Analysis

<i>Construct</i>	<i>Composite</i>	<i>Mean</i>	<i>Std. Deviation</i>
ERP System's Functionality	Integration	3.99	.45
		3.92	
	Material Management	3.94	.55
	Production Planning	3.78	.54
		3.88	.61
	Controlling		.77
	Workflow Management		
Supply Chain Management Performance	SCM Performance	3.89	.39

The general observation of the correlation table below indicates that the ERP system's functionality is significantly correlated with each other except with workflow management. ERP system functionality, i.e. integration ($r = 0.56$, $p < .01$), material management ($r = 0.37$, $p < .01$), production planning ($r = 0.49$, $p < .01$), and controlling ($r = 0.41$, $p < .01$), are significantly and positively correlated with SCM performance. However, workflow management is not correlated with SCM performance. These results indicate that there is a significant relationship between ERP system's functionality and SCM performance. The summary of the correlation analysis results are presented in table 3.

Table 3: Summary of Correlation Analysis

	Integratio n	Mat eria l Ma nag eme nt	Pr o d uc ti o n Pl an ni ng	Co ntr o lli ng	Workfl ow Manag ement	SC M Perf orm anc e
Integratio n	1					
Material Managem ent	.4 1 * *	1				
Productio n Planning	.4 7 * *	.32* *	1			
Controllin g	.3 4 * *	.30* *	.4 2 * *	1		
Workflow Managem ent	.1 9	.20	.0 8 0	.16	1	
Supply Chain Managem ent (SCM) Performan ce	.5 6 * *	.37* *	.4 9 * *	.41 **	.20	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

This study has found that there is a positive and significant relationship between ERP system's functionality i.e. (integration functionality, material management functionality, production planning functionality, controlling functionality), and SCM performance. The workflow management functionality, however, does not have a significant relationship with SCM performance, but still there is a positive relationship between workflow management functionality and SCM performance. These results indicated that the relationships between ERP systems functionality and supply chain management performance are positive and significant relationships.

CONCLUSION

This study aimed to investigate the relationship between ERP system's functionality and SCM performance. The finding of this study supports the significant relationship between ERP system and SCM performance. This research can conclude that, there is a positive and significant relationship between ERP system's functionality i.e. (integration functionality, material management functionality, production planning functionality, and controlling functionality) and SCM performance.

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