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THE EFFECT OF ERP ON SUPPLY CHAIN MANAGEMENT PERFORMANCE: AN INVESTIGATION OF SMALL TO MEDIUM-SIZED ENTERPRISES IN PAKISTAN

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Abstract

In today's business environment, companies are facing fierce competition, both domestically and globally. The competition has evolved from industry versus industry to supply chain versus supply chain. As a result, businesses are striving to find effective solutions to stay ahead of the competition, enhance customer experience, lower expenses, and boost profits. The performance of supply chain management has become an increasingly crucial factor in determining a company's success. Many companies are investing in new software and processes to simplify their supply chain and enhance its performance. The implementation of an organizational management system like ERP can aid in better supply chain management, improved efficiency, and a competitive edge in the global market. The objective of this research is to investigate the influence of implementing an ERP system on SCM performance in Small and Medium-sized Enterprises (SMEs). The research aims to comprehend the impact of using an ERP system on inventory network management and increasing efficiency. Additionally, the study endeavors to discover how businesses can gain a competitive advantage, control demand, and maintain quality in both internal and external environments. The research findings indicate that System Integration, Workflow Management, Product Planning, Material Management, and Control Management have a favorable influence on SCM performance. This implies that an increase in these variables results in improved supply chain management outcomes.

Keywords: Integrations, Management of Material, Planning for Production, Controlling, Workflow Management

Introduction

Businesses have reached a new period of networking rivalry, in which competition is now transferred to an international market from domestic-level companies, and which basically varies from one industry of Supply chain to another. Currently, there are many rivalries calculated not only by the performance of individual companies but also by the performance of the supply chain that has reached a new period of networking rivalry, in which competition has shifted from a local to a global business setting, and from industry against the industry to supply chain against supply chain. Currently, there is much rivalry calculated not only by the performance of individual companies but also by the performance of the supply chain. As per the

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literature, the rivalry among industries would put more pressure on businesses to satisfy consumer needs while still ensuring customer retention and loyalty. Companies today face relentless domestic and international competition, and they are looking for reliable solutions that can help them gain greater leverage in their market results and lower costs. Professional standards must also be improved, as well as customer experience, in order for businesses to compete in both local and global markets. In order to achieve a strategic edge in the world economy, companies are constantly striving to reduce prices and reaction times, raise company income, and boost market share. SKUs, delivery, clients, pricing, processes, and the management of materials are also major challenges. Companies understand that in addition to succeeding in the international economy, they must improve not only their performance but also the performance of their entire supply network. This is due to the fact that today's rivalry is not just between companies; it is now spread across their supply chains. Davenport and Brooks said that these factors compel many businesses to stay current and spend heavily in designing and introducing new software and processes, Using an organizational management system, for example.

Implementing reliable and timely data systems can be a valuable asset for businesses seeking to establish a strong information framework, enabling management to make more informed decisions. These programs can also enhance product consistency, customer response, knowledge exchange, and quality across various company divisions, resulting in increased overall business efficiency, particularly in supply chain management. By adopting enterprise resource planning (ERP) systems, businesses can leverage technology to streamline operations, but it is crucial to consider several factors to ensure their effectiveness (Soja & Paliwoda-Pękosz, 2013). Although ERP systems are a widely recognized solution, failures have been reported, particularly in developing countries where there may be insufficient user participation, weak implementation, and inadequate planning. Therefore, it is important to carefully assess and plan the implementation of ERP systems to reap their benefits fully (Kujala, 2008).

Research Questions

1. How does integration affect the performance of supply chain management?
2. What influence does material management have on supply chain management performance?
3. How does planning impact supply chain management performance?
4. What is the effect of control on supply chain management performance?
5. What influence does workflow management have on supply chain management performance?

Research Objectives

This study strives to answer the following research questions:

- To assess the impact of integration on SCM performance.

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- To examine the effect of materials management on SCM performance.
- To investigate the relationship between production planning and SCM performance.
- To explore the influence of controlling on SCM performance.
- To analyze the relationship between workflow and SCM performance.

Rationale of the study

The growth and expansion of small to medium-sized enterprises (SMEs) in Pakistan have made them significant contributors to the country's economy. Despite this growth, many SMEs in Pakistan face challenges in effectively managing their supply chains, which can impact their overall performance and competitiveness. This study aims to fill this gap in knowledge by investigating the effect of ERP on SCM performance in SMEs in Pakistan. The findings of this study will provide insights into the challenges and opportunities faced by SMEs in this area and help inform the development of strategies and policies to support the growth and success of SMEs in Pakistan.

Research Problem

Several findings in the literature have demonstrated the role of ERP systems in firms' success. However, enterprise systems are now a vital necessity for success, as well as a big and comprehensive IT network for most businesses, allowing companies to succeed in both national and global markets and guaranteeing that they maintain success in the international marketplace. Businesses undergo considerable changes as a result of the implementation of an ERP system, which affects how they do business and restructures their supply chains. Our goal is to identify the variables that affect SCM performance in ERP systems for SMEs in order to create a better knowledge of ERP success at SCM performance in SMEs. There is ample study and literature on corporate companies in established countries. We are striving to conduct research on this topic in Pakistan and Karachi in the SME sector; hence, this will bridge the gap in the literature.

Scope

The scope of this research is limited to Karachi. It will focus only on employees working or owning small to medium-sized enterprises (SMEs) with implemented ERP systems that have an impact on their supply chain management (SCM) performance. The boundary was set based on the observation that 90% of young people in Karachi believe they lack economic opportunities for professional growth, leading them to start their SMEs.

The paper study examined the degree of significance of integration, material management, and controlling and plan production in the SCM performances. In SMEs, improving dynamic quality and profitability is proof of ERP success. The study used a quantitative approach to cope with finding items in integration, material

management, managing and planning production in order to bring favorable results to ERP firms.

Literature Review

The ERP system was initially limited to production plans. However, by the 1990s, it had expanded and included additional frameworks such as an online market, order management, more integrated information, and a production network mix. (ERP) systems have evolved to include human asset management, manufacturing, and financial capacities, among others, according to the study by McAdam and Galloway in 2005. In addition to these expanded capabilities, ERP systems have been found to have several benefits, including cost-cutting, increased efficiency, improved visibility, and greater access to information, as noted in the study by Arunthari in 2005. These benefits can help organizations work more effectively and efficiently.

Moreover, implementing ERP systems can increase the efficiency of market frameworks and enhance overall performance; according to the study by Hit et al. (2002), this can help organizations compete more effectively and stay ahead of the competition. By leveraging the expanded functionalities of ERP systems and the benefits they offer, businesses can streamline their operations, reduce costs, and increase their access to reliable and timely data, leading to improved decision-making and increased success in the marketplace.

Moreover, the widespread acceptance of the ERP system by a huge range of companies is one of its significant and global accomplishments, Which has contributed to the ERP framework being regarded as the most rapidly evolving framework available today. As previously reported, due to globalization, a push from domestic to international business sectors has turned commercial centers into brutal competition and, to a greater degree, a violent and extremely complicated place to conduct business (Christopher, 2000;). Production network preparation practices are a way of improving efficiency, meeting requirements, extending benefits, and meeting necessities worldwide. The expansion of market sectors involves low prices, faster order fulfillment, and high quality and standards (Braunscheidel, 2005). To stay competitive in the global marketplace, one must have a well-coordinated stock quality program (Bandyopadhyay & Sprague, 2003). In today's market, to get a market edge, one must effectively link inside and outside activities through improved supply practices and improved board apparatuses. Not only that but an organization's overall activities and execution are influenced by its management or authority types. Authority types consider a company's long-term viability (Sharif and Irani, 2008).

ERP Systems

ERP system was first introduced in 1992, but in past years it has grown to ERP software has grown to become one of the most well-known business software in the market and a vital element of many firms' every day Information systems operations, as they believe ERP can address their IT difficulties and thus allow effective online transactions in the current e-business era. It has been stated that amongst the most important and global advances, ERP systems have been widely adopted by many businesses throughout the world, leading to ERP systems being regarded as the fastest-evolving operating mechanism in IT today. Enterprise resource is a business

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management system that integrates all business activities, procedures, and knowledge across multiple divisions within a company. Businesses would be able to simplify and consolidate the bulk of their business operations, share shared data and activities across the whole organization, and generate and examine data in real-time using this business software platform. The ERP system's origins were in engineering, where it was used to manage only demand. After that, in the mid-1990s, the structure was extended to include features such as financial control, inventory control, service administration, and research and development, which are all examples of management. The effectiveness of ERP systems has expanded in recent years (McAdam and Galloway, 2005) quoted managerial resources as among the main ERP systems applications that have various functionalities. Whenever a firm implements an ERP program, the first consideration will be the core collection that the company requires, and most firms will select unique sections in order to incorporate specific functionality that matches the expectations of its stakeholders. As a result, most firms only use a few of the ERP system's features rather than all of them. The technologies are chosen based on the needs of the customer, the characteristics that must be provided within the company, and the need for respect to the needs that will satisfy selection characteristics and, thus, satisfy business goals. When companies want to improve their financial efficiency, they use finance modules, and when they want to increase their supply chain management performance, they use SCM modules. Integrating demand forecasting, scheduling, resources, and report generation, on the other hand, are the subjects of this study. The supply chain is a configuration in a Software system that includes a comment section for raw material acquisition, component transition, and production process in the ability to implement the correct item to the right location time at a low price, resulting in customer satisfaction and loyalty as well as effective and successful supply chain performance. The essential dimensions of ERP program management, workflow, production plan, material management, and control, which will be drawn from many sources, will be the subject of this study.

The supply chain Management performance

The techniques for monitoring the supply chain's efficacy and productivity, which include cost, quality, time and consumer response, and reliability, are referred to as SCM performance. SCM aids in inventory and working capital reduction. It also fosters a close relationship between stakeholders and clients. Further, it is the sharing of knowledge and the exchanging of products and services between suppliers and consumers. This is made up of operations that help with the transport of products and the transfer of information from raw materials to end users. SCM is one of the most common and effective management techniques in today's economy, with a direct effect on corporate success. Companies that incorporate SCM into their business models, on the other hand, may provide high-quality goods at a low price to draw buyers. Cross-functional collaboration is required to establish an efficient and competitive SCM, as many companies must manage the entire process of the supply chain containing manufacturers, stores, plants, and dealers, and include teamwork with all the stakeholders by The importance of planning, communication, and knowledge exchange in achieving successful and profitable operations cannot be overstated.

ERP may be a useful tool for helping businesses create efficient and competitive supply chains. In reality, ERP systems were created to consolidate all of a company's operating units as well as its supply chain into a single structure. As a result,

all SCM data and information would be available and retrievable from a single system. Because of the convenience of access to one device from many functional units and the growth of IT and computing science, SCM efficiency has improved. In order to deliver the right product to the right location at the right time at a low price, the Operations device in the ERP framework incorporates inter for component sourcing, component transition, as well as quality management, resulting in customer retention and loyalty as well as reliable and competitive Operations results. Channel coordination, knowledge exchange, organization performance, and Within the supply network, there is a coordinated effort. It will also help to increase overall supply chain success. The ERP method integrates the company and its supply chain for greater collaboration and teamwork. The Information system's and supply chain's performance is heavily dependent on the company's incorporation process, which can be accomplished with ease using the central features of the system; it facilitates the company's procurement by providing online linkage, enabling electronic data transfer, and unifying the whole supply network. Accessibility, value, accuracy, understandability, practicality, and convenience are all facts of knowledge (Petter et al., 2008). To give a superior comprehension of ERP accomplishment at the SCM performances determined by the owners of SMEs, this exploration will investigate the components that impact the SCM performance in an ERP climate of SMEs in Pakistan. A comprehension of the components that impact SCM performance in an ERP climate for SMEs is basic for ERP achievement.

ERP Systems and SCM Performances

The utilization of ERP systems can have a significant impact on supply chains as it enables companies to share knowledge with other partners, resulting in the timely delivery of raw resources once an order is received. To effectively track and collect information within the supply chain, the implementation of an ERP system with added external features and devices, such as supply chain management (SCM) and factory execution systems, is essential. The fundamental premise is to obtain the right product at the right time, quality, and price. Therefore, businesses must not only flow information internally but also exchange the relevant information with the right supply chain partner at the appropriate moment. To achieve these objectives, companies need an information system, such as an ERP system, that facilitates the coordination of the entire process and provides timely information to all stakeholders. This framework is commonly viewed as a necessary precondition for supply efficiency and as a potent tool for enhancing it. Firms are using Enterprise applications to implement all functional units, optimize and handle data sharing across their whole sectors, and then extend it to companies and distributors in an attempt for suppliers to streamline the shipment of material needed and also for customers to streamline the shipment of essential items. Usually, Erp programming installation is linked to business process reengineering so that the entire company may focus on business process operations. Many authors accept the importance of an ERP system in enhancing supply chain efficiency. Take, for example, the finding that ERP systems improve supply chain efficiency. There are numerous success stories indicating that supply chain management will improve and increase supply chain efficiency to be able to succeed and succeed in the current business environment. Enterprise resource planning, as several companies think, gives knowledge in organizational learning and can reduce costs and lead times and increase customer satisfaction and trust. The ERP system's and supply chain's effectiveness is strongly reliant on the company's implementation

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phase, which can be easily done using the ERP system's core elements, which include web connection, data interchange, and the implementation of the production chain to support the company's supply chain processes efficiently.

Research Framework

Research Hypotheses

H_{o1}: Workflow management has no effect on supply chain (SC) performance.

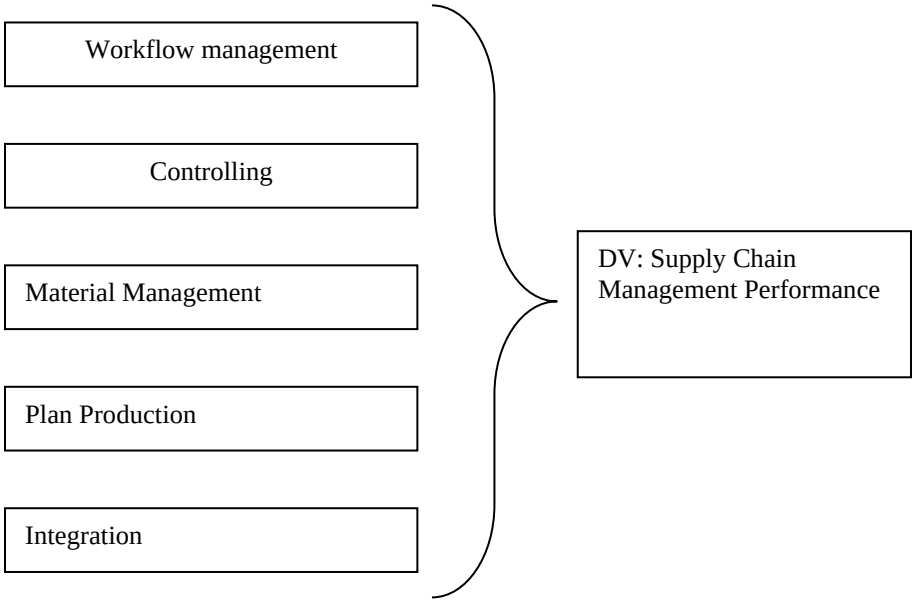
H_1: Workflow management has a significant impact on SC performance.

H_{o2}: Control management does not affect supply chain performance.

H_2: Control management has a significant impact on SC performance.

H_{o3}: Material management does not affect supply chain performance.

H_3: Material management has a significant impact on SC performance.



H_{o4}: Product planning does not affect supply chain performance.

H_4: Product planning has a significant impact on SC performance.

H_{o5}: Systems integration does not affect supply chain performance.

H_5: Systems integration has a significant impact on SC performance.

Methodology

Research design

Questionnaires are a tool used to gather numerical data. Quantitative research relies on the analysis of numerical data that can be categorized and interpreted mathematically. This method is focused on objective measurements of specific phenomena and their response to changes in the environment.

Target population

The target population for this study consists of owners and employees who are involved with and impacted by ERP systems in Small and Medium Enterprises (SMEs) in Karachi, Pakistan. The study focused on individuals currently using ERP systems in their businesses. The questionnaire was distributed through social media sites and groups due to the ongoing pandemic. The results were tested for the accuracy and validity of the data.

Sampling

The respondents selected **were based on the availability and accessibility of the participants by using convenience sampling, which is a type** of non-probability sampling.

Instrument selection

The questionnaire consists of 20 questions, which the participant will rate on a Likert scale of 1 to 5. It has been designed to be easily completed within 10 minutes. The questions were carefully selected based on construct definitions found in the literature and previous studies that have used similar questionnaires.

Reliability and validity tests

Cronbach's alpha coefficient will be employed to assess the reliability of all items. A Cronbach's alpha value between **0**.70 and **0**.90 indicates that the data is highly reliable, while a value between **0**.50 and **0**.70 indicates that the reliability of the data is moderate.

Data analysis tools and techniques

The primary approach for collecting data was through Likert-scale questionnaires, which involved asking participants to rate their level of agreement or disagreement with a statement on a scale. The researchers collected this data directly from the participants themselves.

In addition to the primary data, the researchers also used secondary data sources, such as articles, books, and reliable sources, to help them better understand the topic they were studying and develop theories and definitions related to it. This is a common practice in research, as secondary sources can provide valuable context and support for primary data.

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To analyze the data, the researchers used software tools, including Excel and SPSS. Excel was used to extract data from the online Google forms, while SPSS was used to run several tests and convert the collected data into meaningful information. SPSS is a statistical software package that is widely used in research to analyze and interpret data.

Validity and reliability of the instrument

The value of (0.928) states that the questionnaire has comprehensive reliability. Our respondents were 183 from Karachi, Pakistan.

Data Presentation & Analysis

Reliability Analysis

Table 01: Reliability Statistics	
Cronbach's Alpha	N of Items
0.796	21

The Cronbach alpha entails the degree to which a set of items are related. The value of 0.796 indicates that the level is acceptable.

Descriptive Analysis

Table 2: Gender of Respondents	
Gender	Percentage
Male	80.4
Female	19.6
Total	100.0

Table 2 shows the gender distribution of the respondents in the study. Out of the total participants, 80.4% were male and 19.6% were female. The total percentage adds up to 100%.

Table 3: Length of time in industry	
Experience	Percentage
Less than one year	26.1
1-5 years	48.9
6-10 years	20.1
More than ten years	4.9

Total	100.0

Table 3 represents the length of time the respondents have been in the industry. The data shows that the majority of the respondents (48.9%) have been in the industry for 1-5 years, followed by 26.1% who have been in the industry for less than one year. 20.1% of the respondents have been in the industry for 6-10 years, and only 4.9% have been in the industry for more than ten years. The total percentage adds up to 100%.

Table 04: Company implements supply chain management	
Supply chain management	Percentage
Yes	93.5
No	6.5
Total	100.0

Table 4 shows the results of the survey on whether companies implement supply chain management. It shows that 93.5% of the companies surveyed have implemented supply chain management, while 6.5% of the companies have not. The total number of companies surveyed is 100%, indicating that all respondents have been accounted for in the data. This table provides information on the prevalence of supply chain management in the surveyed companies. It gives insight into the level of importance placed on supply chain management in the industry.

Table 5: Number of employees	
Number of employees	Percentage
<50	56.5
51-200	37.0
201 or above	6.5
Total	100.0

Table 5: Number of employees provides information on the size of the companies surveyed in terms of the number of employees. It shows that the majority of companies (56.5%) have less than 50 employees, followed by 37% of companies with 51-200 employees. Only 6.5% of the companies have 201 or more employees. The total percentage adds up to 100%, indicating that all the companies surveyed have been accounted for.

Table 6: Descriptive Statistics			
	Mean	Std. Deviation	N
System Integration	1.965	0.553	184
Workflow Management	2.010	0.460	184

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Product Planning	2.365	0.578	184
Material Management	2.390	0.726	182
Control Management	2.186	0.598	184
Supply Chain Performance	2.132	0.478	184

Table 6 presents the descriptive statistics for six variables: System Integration, Workflow Management, Product Planning, Material Management, Control Management, and Supply Chain Performance. The mean values for all six variables range from 1.965 to 2.39, with Supply Chain Performance having the lowest mean value at 2.132. The standard deviations range from 0.460 to 0.726, with Material Management having the highest standard deviation at 0.726. The sample size for all six variables is 184, except for Material Management, which has a sample size of 182.

Table 7: Correlations

		INT	WFM	PP	IMM	Control	SCMP
INT	Pearson Correlation	1	0.465	-0.033	0.010	0.531	0.478
	Sig. (2-tailed)		0.000	0.661	0.893	0.000	0.000
WFM	Pearson Correlation	0.465	1	0.033	0.016	0.321	0.500
	Sig. (2-tailed)	0.000		0.658	0.826	0.000	0.000
PP	Pearson Correlation	-0.033	0.033	1	0.529	-0.061	0.287
	Sig. (2-tailed)	0.661	0.658		0.000	0.410	0.000
IMM	Pearson Correlation	0.010	0.016	0.529	1	-0.078	0.325
	Sig. (2-tailed)	0.893	0.826	0.000		0.293	0.000
Control	Pearson Correlation	0.531	0.321	-0.061	-0.078	1	0.462
	Sig. (2-tailed)	0.000	0.000	0.410	0.293		0.000
SCMP	Pearson Correlation	0.478	0.500	0.287	0.325	0.462	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	184	184	184	182	184	184

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

Table 7 displays the correlation between various variables. The variables included are system integration (INT), workflow management (WFM), product planning (PP), material management (IMM), control management (control), and supply chain performance (SCMP). The strength and direction of the relationship between each pair of variables are shown in the Pearson Correlation column. A

correlation of 1 indicates a strong positive relationship, a correlation of -1 indicates a strong negative relationship and a correlation of 0 indicates no relationship. The significance level of the correlation is displayed in the Sig. (2-tailed) column. If the p-value is less than 0.01, it implies that the correlation is statistically significant.

According to the table, System Integration has a positive and statistically significant correlation with Work Flow Management ($r = 0.465$, $p < 0.01$), Control Management ($r = 0.531$, $p < 0.01$), and Supply Chain Performance ($r = 0.478$, $p < 0.01$). This suggests that improving System Integration can result in better Workflow Management, Control Management, and Supply Chain Performance.

Furthermore, Workflow Management has a positive and significant correlation with Control Management ($r = 0.321$, $p < 0.01$) and Supply Chain Performance ($r = 0.500$, $p < 0.01$). This means that improving Workflow Management can lead to better Control Management and Supply Chain Performance.

On the other hand, Product Planning has a positive but not significant correlation with Material Management ($r = 0.529$, $p > 0.01$) and Supply Chain Performance ($r = 0.287$, $p > 0.01$). This indicates that there may be a relationship between Product Planning and Material Management, as well as Product Planning and Supply Chain Performance. However, the relationship is not strong enough to be considered statistically significant.

Regression

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.714a	0.509	0.495	0.34191
a. Independents: (Constant), Control, PP, WFM, IMM, INT				

Table 8 displays the findings of a regression analysis. The model summary contains the R, R Square, Adjusted R Square, and Standard Error of the Estimate for the model. An R-value of 0.714 suggests a strong positive association between the dependent variable and independent variables (Control, PP, WFM, IMM, and INT). The R Square value of 0.509 indicates that around 51% of the variation in the dependent variable is explained by the independent variables in the model. The Adjusted R Square value of 0.495 implies that, after taking into account the number of independent variables, approximately 49.5% of the variation in the dependent variable is explained by the model. The Standard Error of the Estimate (SEE) is 0.34191, which represents the average deviation between the predicted and actual values of the dependent variable. This means that it shows the average discrepancy between the model's predictions and the actual values.

Table 09: ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.354	5	4.271	36.532	0.000b
Residual	20.575	176	0.117		

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Total	41.929	181			
a. Dependent Variable: SCMP					
b. Independents: (Constant), Control, PP, WFM, IMM, INT					

The table of analysis of variance (ANOVA) presents information about the regression model applied to the data. The column named "Sum of Squares" indicates the total variability in the dependent variable (SCMP). In contrast, the row named "Regression" shows the variability explained by the independents (Control, PP, WFM, IMM, INT). The row named "Residual" reports the amount of variability that is not explained by the independents and is therefore considered to be a random error. The column "df" provides the degrees of freedom associated with each term, while "Mean Square" is obtained by dividing the sum of squares by the degrees of freedom. The "F" column reflects the ratio of the explained variability (Regression) to the unexplained variability (Residual), and the "Sig." column provides the significance level for the F-test. According to the table, the independents are significant in explaining the variability in the dependent variable SCMP, as shown by the F-value of 36.532 and the significance level of 0.000.

Table 10: Coefficientsa

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
(Constant)	-0.069	0.171		-.402	0.688
INT	0.156	0.058	0.180	2.672	0.008
WFM	0.324	0.062	0.312	5.184	0.000
PP	0.138	0.052	0.167	2.677	0.008
IMM	0.167	0.041	0.253	4.042	0.000
Control	0.237	0.051	0.296	4.690	0.000
a. Dependent Variable: SCMP					

The table displays the coefficients of the regression model that was utilized to forecast the dependent variable, "Supply Chain Performance" (SCMP). The table presents the unstandardized coefficients (B), the standard error of the coefficients, and the standardized coefficients (Beta). The first row corresponds to the constant term, which indicates the value that the dependent variable takes when all the independent variables equal 0. The constant term coefficient is -0.069, with a standard error of 0.171 and a t-value of -0.402. The p-value of 0.688 suggests that the constant term is not statistically significant in predicting the dependent variable. The independent variable "System Integration" (INT) has a coefficient of 0.156, with a standard error of 0.058 and a t-value of 2.672. The p-value of 0.008 indicates that this independent variable is statistically significant in predicting the dependent variable. The independent variable "Work Flow Management" (WFM) has a coefficient of 0.324, with a standard error of 0.062 and a t-value of 5.184. The p-value of 0.000 suggests that this independent variable is statistically significant in predicting the dependent variable. The independent variable "Product Planning" (PP) has a coefficient of 0.138, with a standard error of 0.052 and a t-value of 2.677. The p-value of 0.008 indicates that this

independent variable is statistically significant in predicting the dependent variable. The independent variable "Material Management" (IMM) has a coefficient of 0.167, with a standard error of 0.041 and a t-value of 4.042. The p-value of 0.000 suggests that this independent variable is statistically significant in predicting the dependent variable. The independent variable "Control Management" (Control) has a coefficient of 0.237, with a standard error of 0.051 and a t-value of 4.690. The p-value of 0.000 indicates that this independent variable is statistically significant in predicting the dependent variable.

Discussion

The result of Cronbach's Alpha is 0.796, which is higher than the minimum level of 0.70 that is typically accepted. This indicates that the set of items is internally consistent and related.

The F-value of 36.532 with a significance level of 0.000 indicates that the independents are significant in explaining the variability in the dependent variable.

The difference between conditions means (presumably for the dependent variable) is due to the manipulation of the independent variables.

The R square value of 50.9% indicates that about half of the variance in the dependent variable can be explained by the independent variables in the model.

The values for the t-statistic and the significance level (sig.) for each independent variable. The standardized coefficient (beta) indicates the extent to which each independent variable impacts the dependent variable.

Table 11 Result of Hypotheses

No.	P-value	Remarks
Integration	0.008	H_1 Accepted
Workflow management	0.000	H_2 Accepted
Material Management	0.000	H_3 Accepted
Plan Product	0.008	H_4 Accepted
Controlling	0.000	H_5 Accepted

All the values are less than 0.05; hence, it is safe to say that all the variables do have significance. The null hypothesis can be rejected.

Conclusion

Market patterns are dynamically advancing with expanding hazard improvement for Supply, and numerous calculated intricacies emerge. Nations such as China, Bangladesh, and even Pakistan have issues with maintaining consistent quality. The most recent examinations demonstrate how frameworks joining alongside supply management really helps with upgrading the development and execution. To acquire an advantage, each venture needs to follow innovation, advancement or cost cuts. As

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such, the innovation that disrupts the organizations must be reacted with the most recent methods and apparatuses. Which is just conceivable with the incorporated design and facilitated supply in the organization. To acquire the upper hand, organizations need to cut costs. Again, which is just conceivable with the assistance of practices and the board as supply the executives and programming selection? A coordinated and communitarian framework prompts a solid backend supply network. Subsequently, it helps control expenses and share chances as operational, informed frameworks. The investigation effectively demonstrated that a framework consisting of management of inventory, controlling, planned production, integration, workflow and material management could be an exceptionally gainful outcome in designing a smooth network. A country like Pakistan can also gain an advantage and expand its opportunities if more insights are discovered.

Significance of Research

SMEs play a crucial role in Pakistan's economy, contributing significantly to the country's Gross Domestic Product (GDP) and providing employment opportunities. However, they face several challenges, including limited resources, lack of access to technology, and a lack of knowledge about the benefits of implementing Enterprise Resource Planning (ERP) systems. Moreover, supply chain management performance is critical to the success of any business, particularly in a globalized and competitive environment. The efficient management of supply chain processes can result in reduced costs, improved quality, and increased customer satisfaction. Hence, understanding the impact of ERP on supply chain management performance in SMEs in Pakistan can help these businesses to compete in the global market and achieve their goals.

Finally, while previous studies have investigated the impact of ERP on supply chain management performance in larger firms, research on the topic in the context of SMEs in Pakistan is limited. Therefore, this study can contribute to the body of knowledge on the topic and provide valuable insights for SMEs, policymakers, and academics.

References

Al-Mashari, M. and Al-Mudimigh, A. (2003), “ERP implementation: lessons from a case study,” *Information Technology and People*, 16(1), 21–33.

Al-Mashari, M. and Zairi, M. (2000), “Supply-chain re-engineering using enterprise resource planning (ERP) systems: an analysis of a SAPR/3 implementation case”, *International Journal of Physical Distribution & Logistics Management*, 30(4), 296–313.

Chen, I.J. (2001). Planning for ERP systems: Analysis and future trend. *Business Process Management Journal*, 7 (5), 374–386.

Davenport, T.H. and Brooks, J.D. (2004), “Enterprise systems and the supply chain”, *Journal of Enterprise Information Management*, 17(1), 8–19.

Goodhue, D.L., Wybo, M.D. and Kirsch, L.J. (1992), "The impact of data integration on the costs and benefits of information systems," *MIS Quarterly*, 16(3), 293–308.

Hsu, L., Lai, R., & Weng, Y. (2008). Understanding the critical effect of user satisfaction and the impact of ERP through innovation of diffusion theory. *International Journal of Technology Management*, 43(1–3), 30–47.

Hsu, L.L. (2005), "SCM system effects on performance for interaction between suppliers and buyers," *Journal of Industrial Management & Data Systems*, 15(7), 857–75.

Iskanius, P. (2010). Risk management of ERP projects in manufacturing SMEs. *Information Resources Management Journal*, 23(3), 60–75.

Kwak, Y., Park, J., Chung, B., & Ghosh, S. (2012). Understanding end-user's acceptance of enterprise resource planning (ERP) systems in the project-based sector. *Engineering Management, IEEE Transactions*, 59(2), 266–277.

Lopes, P.F. (1992), "CIMII: the integrated manufacturing enterprise," *Industrial Engineering*, 24, 5–43.

McAdam, R. and Galloway, A. (2005), "Enterprise resource planning and organizational innovation: a management perspective," *Industrial Management & Data Systems*, 105(3), 280–90.

Molla, A. and Bhalla, A. (2006), "Business transformation through ERP: a case study of an Asian company," *Journal of Information Technology Case and Application Research*, 8(1), 34.

Neely, A., Gregory, M. and Platts, K. (1995), "Performance measurement system design: a literature review and research agenda," *International Journal of Operations and Production Management*, 15(4), 80–116.

Rashid, M.A., Hossain, L. and Patrick, J.D. (2002), The Evolution of ERP Systems: A Historical Perspective, Idea Group Publishing, *Hershey*, PA.

Spathis, C. and Constantinides, S. (2003), "The usefulness of ERP systems for effective management," *Industrial Management & Data Systems*, 103(9), 677–85.

Tjoa, I.B. and Raman, R. (1999), "Impacts of enterprise-wide supply-chain management techniques on process control," *International Conference on Control Applications*, 99, 5446–7803.