






From Systems to Success: Does Top Management Support Mediate or Moderate ERP-Driven Financial Performance?

L. S. T. Perera¹, N. P. K. Ekanayake^{2*}, K.W.N.Y. Premaratne³

^{1,2} Department of Commerce & Financial Management, Faculty of Commerce & Management Studies, University of Kelaniya, Sri Lanka, ³Department of Accountancy & Finance, Faculty of Management Studies, Rajarata University of Sri Lanka

*Corresponding Author: neranjanae@kln.ac.lk

ABSTRACT

Being a powerful player in this era, Television Advertisements have been positioned as an Enterprise Resource Planning (ERP) systems are widely adopted to enhance organizational integration, decision-making, and operational efficiency. However, evidence on their direct impact on financial performance (FP) remains inconclusive. This study investigates the mediating and moderating roles of Top Management Support (TMS) in the relationship between ERP implementation and FP, focusing on 52 export-oriented apparel companies in Sri Lanka. Guided by the Resource-Based View (RBV) and Contingency Theory, the study employs a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze survey data. The results reveal that TMS partially mediates the ERP-FP relationship, underscoring its crucial role in ensuring ERP success, while the moderating effect of TMS is statistically insignificant. The study contributes to ERP literature by providing context-specific evidence from a developing country and offers practical insights for managers to sustain ERP-driven financial improvements through consistent top management engagement.

Keywords: Enterprise Resource Planning (ERP), Export Apparel, Financial Performance (FP), Top Management Support (TMS).

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INTRODUCTION

ERP systems are made to combine different organizational functions such as human resource management, accounting, production, and supply chain management (Bjelland & Haddara, 2018). By consolidating disparate data into a shared database, ERP systems provide accessible and synchronized information to enhance decision-making and effectiveness of operations (Syafira, Puspitasari, & Witjaksono, 2021). Businesses in developing countries like Sri Lanka are particularly drawn to these systems because of their affordability, scalability, and flexibility, especially when using subscription-based models. ERP systems are becoming growing in importance in industries where competitive and operational efficiency are critical, such as the apparel manufacturing sector.

Despite the well-established advantages of ERP, like better customer service and cost reductions, it is still unclear how directly ERP affects FP; some studies find no impact, while others show favorable results. (Seethamraju, 2014). One critical factor influencing ERP success is TMS, which plays a crucial role during the ERP deployment and post-implementation stages (Rodríguez, Pérez, & Gutiérrez, 2008). TMS involves senior management's active engagement in providing necessary resources, setting strategic goals, and ensuring alignment with organizational objectives. Though a lot of study has been done on TMS in the early phases of ERP adoption, less is known about how it affects FP after installation, especially when it comes to Sri Lankan apparel industries. (Soliman & Karia, 2017).

Using PLS-SEM for financial outcomes, this study investigates the mediating and moderating impacts of Top Management Support (TMS) on ERP deployment in Sri Lanka's garment sector, with the goals of increasing output, reducing costs, and

enhancing international competitiveness. The study examines the mediating and moderating roles of TMS in the relationship between ERP installation and FP in Sri Lanka's garment industry.

This study adds to the body of knowledge on ERP systems worldwide and offers useful insights for clothing firms by examining the post-implementation effects of TMS on ERP's financial outcomes in Sri Lanka. This study contributes originality by empirically examining the dual mediating and moderating roles of Top Management Support (TMS) in the ERP–financial performance relationship within Sri Lanka's export apparel sector, an area that remains underexplored in existing ERP literature. By integrating the Resource-Based View and Contingency Theory, this research offers a novel theoretical lens to explain how managerial involvement shapes ERP driven financial outcomes in emerging markets. Despite the growing adoption of ERP systems, many Sri Lankan apparel exporters continue to face integration challenges and inconsistent financial gains, indicating a need to understand contextual factors such as Top Management Support that influence ERP-driven financial performance in this sector.

The study is structured in several sections: section two reviews relevant literature on ERP systems, TMS, and their relationship with FP; section three explains the research methodology, including data collection and analysis techniques; section four discusses the findings; and section five concludes the study with recommendations for further research and implications for practice.

LITERATURE REVIEW

Resource-Based View (RBV) theory

The RBV theory explains how companies gain a competitive advantage by utilizing

valuable, rare, and hard-to-imitate resources and capabilities (Barney, 1991). It makes a distinction between capabilities (how resources are used) and resources (manageable factors). (Jayeola, et al., 2022). Although some criticize RBV's lack of attention to external influences, it highlights the role that special, non-replaceable resources make in long-term success. (Ling-Yee, 2007).

Contingency Theory

According to contingency theory, unpredictable internal and external events play a role in a company's success in addition to its resources and capabilities. (Grötsch, Blome, & Schleper, 2013). The hypothesis highlights how context, such as TMS in ERP systems, has a significant impact on performance. (Barney, 1991). This study explores the role of TMS and ERP evaluation systems in shaping organizational success, highlighting the need for a context-specific approach to optimize resource effectiveness and improve FP in the apparel sector.

Top Management Support (TMS)

TMS is essential for successful ERP system implementation, aligning organizational goals with ERP needs. TMS is essential to the ERP process from resolving issues to assuring efficient use. Research indicates that after initial adoption, TMS's continued dedication is essential (Elbanna, 2013). There are three perspectives on the influence of TMS: deterministic, contingent, and dynamic. While each viewpoint emphasizes the many functions of TMS, their applicability is unclear in the absence of comparison. In order to investigate these viewpoints' relevance in ERP deployment, this study looks at them using two case studies.

ERP Implementation

ERP systems are made to automate processes and streamline operations

across departments, enhancing departmental collaboration and productivity. Although these solutions are affordable and especially well-suited for businesses with little resources, their successful deployment necessitates considerable organizational adjustments. (Rainer & Prince, 2022) (Mathew, A.O, & Rodrigues, 2018). Key factors for success include system quality such as integration, flexibility, and reliability, effective change management, and the alignment of financial and non-FP measures. Studies highlight the importance of TMS during the deployment phase (AL-Shboul, 2019) (Arunachalam, 2018) (Usman, Ahmad, & Zakaria, 2019). Additionally, ERP implementation requires business process reengineering and organizational learning to achieve optimal performance over time, extending beyond the initial implementation phase (Robey, Ross, & Boudreau, 2002).

In line with prior research, ERP implementation is conceptualized in this study as a multidimensional construct comprising two key dimensions: ERP Usage and Strategic Alignment (Jayeola et al., 2022; Chiu & Yang, 2019; Gangwar, 2017). ERP Usage reflects the technical and functional deployment of ERP systems, whereas Strategic Alignment captures how effectively ERP supports the organization's strategic goals. This two-dimensional approach provides a more comprehensive understanding of how ERP systems drive financial performance outcomes in the Sri Lankan apparel sector.

Financial performance (FP)

FP is a key indicator of a company's success, often influenced by the quality of information generated through systems like ERP (Haleem, 2020). According to research, the quality of accounting information, which includes accuracy, relevance, timeliness, and completeness, is vital for management to make strategic

decisions (Haleem, 2020). The effectiveness of an ERP system directly impacts the quality of this information, ultimately driving a company's performance in both financial and operational terms. Information systems (IS) and contingency theories suggest that a company's capabilities, such as information access, product variety, process improvement, and financial flexibility, are crucial for competitive advantage. These capabilities are enhanced through ERP systems, which help businesses respond to market needs and improve overall organizational performance. RBV highlights the importance of unique resources and capabilities that are valuable, rare, and difficult to imitate for gaining a competitive edge. Businesses with these skills can continue to perform well over a prolonged period. These ERP characteristics, which boost a company's competitiveness in the market, include better information access, financial process flexibility, and increased product offerings (Barney, 1991).

Despite the potential benefits of ERP systems, the research on their impact on FP is mixed. While some studies reveal no effect, others demonstrate a notable positive impact (Barney, 1991). This research aims to address this inconsistency by exploring the role of TMS as a mediating or moderating factor in the relationship between ERP implementation and FP. TMS plays a critical role in ensuring the successful deployment and ongoing effectiveness of ERP systems, influencing how well an organization leverages the system's capabilities for financial success (Jayeola et al., 2022). DeLone and McLean's IS success model emphasize that system quality and information quality are closely linked to organizational success (DeLone & McLean, 1992). For ERP systems to contribute to improved FP, high-quality information must be generated and

effectively utilized. Therefore, this study explores the impact of ERP systems on FP by focusing on TMS as a key variable, along with information quality and system quality (DeLone & McLean, 1992).

In conclusion, ERP systems have a great deal of potential to improve FP; nevertheless, the link is still complicated and needs more research. To comprehend how ERP systems affect financial success, it is essential to consider the mediating function of TMS in addition to features like information access, process enhancements, and financial flexibility. The research also emphasizes that achieving high-quality information is essential for making informed decisions and meeting financial goals. As a result, it is anticipated that FP will be impacted by ERP adoption in Sri Lanka's export apparel industries, with TMS playing a crucial part in this dynamic relationship.

H₁: ERP implementation impacts the FP in the export apparel companies in Sri Lanka.

Mediation of Top Management Support

TMS's ability to wholly or partially influence the relationship between ERP adoption and a company's financial performance is known as its mediating effect (Jayeola et al., 2022). In apparel companies, where owners are often also managers, strong TMS is crucial for the successful implementation of ERP to achieve financial benefits. Top management plays a key role in problem-solving, fostering innovation, and supporting IT (Information Technology) initiatives (Rodríguez, Pérez, & Gutiérrez, 2008). Their dedication to resource allocation and understanding of the advantages of ERP greatly improves ERP utilization and, eventually, business performance. Research indicates that businesses with strong TMSs do better both strategically and operationally,

particularly after implementing ERP. TMS acts as a catalyst for better ERP performance by empowering operational managers and enhancing their credibility. By modifying performance goals and offering incentives, it also inspires workers. TMS is therefore necessary to fully profit from ERP systems. (Sharma & Yetton, 2011).

H₂ – TMS mediates the relationship between ERP implementation and FP in Sri Lanka's export apparel companies.

Moderation of Top Management Support

The study explores how TMS moderates the relationship between ERP implementation and FP. Through commitment, training, and incentives, TMS plays a critical role in improving ERP utilization. Strong TMSs have been linked to increased ERP effectiveness, customer satisfaction, and speedier decision-making, according to research. But according to some research, operational factors rather than TMS alone frequently have a bigger influence on ERP success. The analysis suggests that the financial benefits of ERP deployment will be more evident for apparel companies with larger TMS. Thus, TMS significantly influences the ERP's impact on FP (Shaheen, et al., 2023).

H₃ – TMS moderates the relationship between ERP implementation and FP in Sri Lanka's export apparel companies.

Drawing from the Resource-Based View (RBV), TMS is conceptualized as an intangible managerial resource that enhances the firm's ability to realize ERP-driven financial gains. Consistent with Contingency Theory, the study also treats TMS as a contextual factor that may alter the strength of the ERP–FP relationship across organizational settings. Accordingly, TMS is examined as both a mediating and moderating variable to

capture its dual strategic and situational influence on financial performance.

METHODOLOGY

Research Design

This section outlines the research design, detailing data collection, analysis, and interpretation processes to achieve the study's objectives, ensuring systematic and relevant data management (Sekaran & Bougie, 2016) (Kothari, 2004).

Research Philosophy

The study design, a framework describing the procedures for gathering, evaluating, and interpreting data in order to address the research questions, is described in this chapter. In order to accomplish goals, it places a strong emphasis on managing and controlling the action plan. Research theories such as positivism, constructivism, and pragmatics are covered in this chapter. This study follows a positive philosophy, which focuses on scientific, quantitative methods and deductive reasoning. Positivist method to comprehending and analyzing the research topic is supported by the research paradigm, which is founded on the ontological belief in reality and the epistemological presumption that knowledge can be measured (Kivunja & Kuyini, 2017).

Research Approach

Using a deductive methodology, this study builds on earlier research on ERP implementation, TMS, and FP by beginning with accepted hypotheses. The deductive method applies general theories to particular situations in order to examine hypotheses (Sekaran & Bougie, 2016). The study uses the RBV and Contingency Theory to investigate the effect of TMS on ERP implementation and FP in Sri Lankan apparel companies, testing these relationships through data collection and analysis.

Research Strategy

This study aims to investigate the effect of TMS on ERP implementation and its impact on FP in Sri Lankan apparel companies. The study aims to explain how TMS affects ERP implementation and, in turn, FP by concentrating on cause-and-effect interactions. The study employs a survey-based methodology, obtaining self-reported responses from participants using online questionnaires. This method aids in investigating the connections among financial results, managerial support, and ERP. The study expands on pre-existing theories to explain the observed relationships in the Sri Lankan context by examining pre-established possibilities.

Time Horizon and Unit of Analysis

According to (Sekaran & Bougie, 2016), studies can be cross-sectional or longitudinal. Cross-sectional studies collect data at a single point in time, while longitudinal studies track data over multiple time points. This research is cross-sectional, as data was gathered between 2022 and 2023 without following participants over time. The study aims to analyze the relationship between TMS, ERP implementation, and TMS within this specific period. The unit of analysis is apparel companies in Sri Lanka, determined by the industry and market context. This choice of unit and time horizon significantly influences the study’s findings.

Conceptualization & Hypotheses Development

Table 1: *Conceptualization*

Concept	Conceptual Definition
ERP Implementation	Refers to the IS's technical soundness, which includes flexibility, response time, system integration, and dependability (DeLone & McLean, 1992). A multidimensional construct encompassing ERP Usage and Strategic Alignment (STR), reflecting both system utilization and its alignment with organizational strategy (Jayeola et al., 2022; Chiu & Yang, 2019). It can also be described as a centralized IS that is intended to manage and integrate key business functions across several departments, frequently in real-time (Ehie & Madsen, 2005). It can be set up to integrate data and information-based procedures inside a company, which is another way to define it (Parthasarathy & Sharma, 2017). This study examines the impact of ERP Implementation on FP in Sri Lankan apparel companies.
TMS	The degree to which upper management offers guidance, knowledge, and resources during and after the implementation of technological advancements like ERP. And also defined as the degree to which senior management offers guidance, knowledge, and resources both before and after implementing technology innovations like ERP (Ismail, 2009). It is further defined as these actions can be direct, such as providing resources or making pronouncements about the importance of the project, or

	indirect, such as shaping the organizational culture (Sharma & Yetton, 2003). This study focuses on the impact of TMS on FP in Sri Lankan apparel industries.
FP	Measures including profitability, growth, and solvency are frequently used to assess a company's overall financial health. And also, it is defined as the extent to which a business can attain high profitability and Return on Assets (ROA). Financial metrics are instruments for assessing a company's performance over time and comparing businesses (Holmberg, 2000). This study focuses on the impact of ERP implementation and TMS on FP in Sri Lankan apparel industries.

Source: *Authors compiled based on literature*

Conceptual Framework

A conceptual framework is a crucial research tool for determining the contributing elements to a particular issue (Sekaran & Bougie, 2016). The conceptual framework for this study was developed based on a literature review in chapter two, highlighting ERP implementation and TMS as key factors influencing the FP of the apparel sector. This framework serves as the foundation for understanding how the research was conducted and presented in figure 1 below.

Hypotheses of this study

This study aims to explore the relationship between independent variables as environmental concern, willingness to pay a premium, and health consciousness and the dependent variable, green purchase intention. Based on the literature review in chapter two, the study proposes hypotheses regarding the relationship between these variables. There is evidence suggesting a moderate relationship between the independent and dependent variables.

H₁: ERP Implementation impacts on the FP of the export apparel companies in Sri Lanka.

H₂: The TMS mediates the relationship between the ERP Implementation and the FP of the export apparel companies in Sri Lanka.

H₃: The TMS moderates the relationship between the ERP Implementation and the FP of the export apparel companies in Sri Lanka.

Operationalization and Measurement of Key Variables

Operationalization has been defined by (Sekaran & Bougie, 2016) as a tangible way of reducing abstract concepts that would make the concepts measurable. Accurate measurement of variables is crucial in research, as inaccuracies can prevent solutions to the research questions. This study includes one independent variable, ERP implementation, with TMS as both a mediating and moderating variable, and FP as the dependent variable. To assess these factors, a structured questionnaire was created utilizing previously approved scales; the sources and measurement scales as mentioned in Table 2.

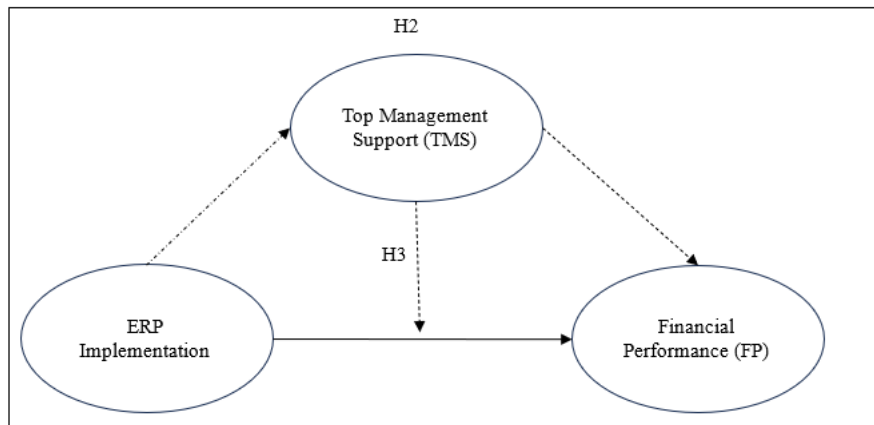


Figure 1: Conceptual Framework

Table 2: Construction of Operationalization

Variable	Item Number	Indicator	Measurement Scale	Source
ERP usage	ERPUSE1	We use ERP very intensively for our main functions.	Five-Points Likert Scale	(Jayeola, et al., 2022)
	ERPUSE2	We use ERP very frequently for our supporting functions.		
	ERPUSE3	We use ERP very innovatively to aid our strategic functions.		
Strategic Alignment (STR) of ERP	STRALIGN1	We align ERP to strengthen customer services.	Five-Points Likert Scale	(Jayeola, et al., 2022)
	STRALIGN2	We align ERP with our business strategies.		
	STRALIGN3	We align ERP to improve process management.		
	STRALIGN4	We align ERP to enhance product/service offerings.		
	STRALIGN5	We align ERP to devise a strategic plan.		
	STRALIGN6	We align ERP to consolidate business goals.		
	STRALIGN7	We align ERP with objectives.		
	STRALIGN8	We align ERP for opportunity recognition.		
	STRALIGN9	We align ERP to adapt to strategic changes.		
TMS	TMS1	Top management provides administrative assistance in ERP implementation.	Five-Points Likert Scale	(Jayeola, et al., 2022)
	TMS2	Top management encourages staff to use ERP.		
	TMS3	Top management is aware of ERP benefits.		
	TMS4	Top management provides adequate resources for the implementation and continued usage of ERP.		

	TMS5 TMS6 TMS7	Top management is aware of the risks involved in ERP implementation. Top management is committed to ensuring that the firm achieves a competitive advantage through the use of ERP. Top management considers the use of ERP to be strategically important.		
FP	FP1 FP2 FP3 FP4 FP5	In the last two years, our company's revenue has grown. In the last two years, our company's market share has increased. In the last two years, our company's profit has improved. In the last two years, our company's return on investment has increased. Overall, our FP is better.	Five-Points Likert Scale	(Jayeola, et al., 2022)

Source: Authors compiled based on literature

The study uses a five-point Likert scale, ranging from "strongly disagree" to "strongly agree," to collect data on the

independent and dependent variables. The specific Likert Scale used for this study is shown in Table 3: Likert Scale

Table 3: Likert Scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Source: Authors compiled based on the survey

Sampling Design

Sampling is the process of selecting a representative group of individuals or respondents to represent the whole population, as studying the entire population is often impractical, time-consuming, and costly. (Sekaran & Bougie, 2016) define sampling as selecting the right individuals, objects, or events to represent the entire population. The goal is to select the best sample, ensuring that the findings can be generalized to the broader population. The study focuses on Sri Lanka's export-oriented apparel industry, the country's largest manufacturing and export sector,

making it a suitable context to examine ERP implementation and financial performance. The target population comprises export apparel firms registered under the Board of Investment (BOI).

A Systematic Random Sampling technique was adopted to minimize bias and ensure representativeness of firms across the industry (Sekaran & Bougie, 2016; Kothari, 2004). The sample size of 61 companies was determined using a 95% confidence interval and a 5% margin of error, ensuring adequate statistical power and contextual relevance.

Target Population

The target population refers to the group of individuals, objects, or elements the researcher aims to study, with findings generalizing the features of the population (Sekaran & Bougie, 2016). In this research, the target population is the apparel industry in Sri Lanka, specifically examining the impact of TMS on ERP implementation and FP.

The Sri Lankan apparel sector, a major contributor to the economy and the largest export industry, accounted for 45.4% of total exports in 2022. Since implementing ERP systems will greatly help Sri Lankan apparel companies and increase their competitiveness in the global market, the garment industry was selected as the target group.

Sample and Sampling Frame

A sample is a subset of the target population (Sekaran & Bougie, 2016). For this study, the sample includes 61 companies from a target population of 72 Sri Lankan export companies, calculated using a 95% confidence interval and a 5% margin of error. The sampling frame, which represents all elements of the target population, is unknown due to the large size of the population.

Therefore, Equation 1: Sample Size is used to calculate the sample size. N shows the population size. Also, e represents a margin of error which shows the percentage in decimal form and z is used for the z -score, which is the number of standard deviations a given proportion is away from the mean for a confidence interval of 95%, the z -score is 1.96.

Sampling Procedure

An online questionnaire survey was created using Google Forms to study the effect of TMS on FP in Sri Lanka's apparel

Equation 1: Sample Size

$$\text{Sample Size} = \frac{(z^2 * p(1-p))}{e^2 / 1 + (z^2 * p(1-p)) / e^2 * N}$$

Sampling Technique

This study explains two key sampling techniques: probability sampling, where each element has an equal chance of being selected, and non-probability sampling, which lacks this equal chance and is more biased. Systematic Random Sampling (SRS), a probability sampling methodology, was used for this study because it is better suited to reflect the target population in Sri Lanka, whereas other methods were either hard to apply or susceptible to bias.

Many studies in this field, including those by, (Jayeola, et al., 2022), (HassabElnaby, Hwang, & Vonderembse, 2012), and (Galy & Saucedo, 2014), have used convenience sampling, a non-probabilistic method known for its bias, due to the unavailability of a sampling frame.

Convenience sampling often leads to biased results, as it selects respondents who are easy to access rather than randomly chosen. Despite its drawbacks, this method was adopted in these studies to gather data on topics such as ERP implementation and its effects on FP and organizational capabilities.

Despite the lack of a sample frame and the paucity of district-level data, this study takes a methodical and objective approach. Due to the large population, SRS, a probabilistic technique, is used to select a random sample from the entire population without bias, as explained in the following section.

sector. The survey was distributed to managers in 72 export companies, with data from 61 companies being used for the analysis.

Data Collection Techniques & Procedure

Data collection is a crucial part of research design, involving the gathering of data from selected samples to achieve the desired outcome. The choice of method depends on factors like cost, time, and the study's purpose (Sekaran & Bougie, 2016). For this study on Sri Lanka's apparel sector, a survey method was used to collect both primary and secondary data. An online questionnaire was developed and distributed to 72 export apparel companies in Sri Lanka to analyze the relationship between the independent and dependent variables.

The respondents of this study were finance managers, accounting executives, and senior management officers directly involved in ERP operations and financial reporting within the selected export apparel firms. These individuals possess comprehensive knowledge of both ERP implementation and organizational financial outcomes, making them suitable to provide accurate and reliable information for the study.

The use of a structured questionnaire was selected as the primary data collection tool because it enables standardized responses and is well-suited for quantitative studies examining causal relationships among organizational variables (Sekaran & Bougie, 2016). The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), which is widely recommended for complex models involving mediating and moderating effects, smaller sample sizes, and non-normal data distributions (Hair et al., 2019; Jayeola et al., 2022). This approach ensures methodological robustness and aligns with prior empirical studies in ERP-related research.

Questionnaire Development

This study uses an online questionnaire to collect primary data, focusing on three key constructs: ERP implementation, TMS, and FP. According to (Sekaran & Bougie, 2016), Respondents answer pre-formulated questions in a questionnaire. Since the study is quantitative, primary data was acquired using this survey. The constructs in the study were measured based on earlier research, altering existing measurements to suit this study's setting. Based on research by (Chiu & Yang, 2019) and (Gangwar, 2017), ERP implementation is assessed using two dimensions: STR (9 things) and utilization (3 items). TMS is assessed with 7 items based on (Gutierrez, Boukrami, & Lumsden, 2015) and (Wang, Y.-S., & Y.-F., Understanding the determinants of RFID adoption in the manufacturing industry, 2010), and FP is measured using 5 items based on (Wang, Q., Lai, & Zhao, 2008). The relationships in the study can be effectively analyzed using these constructs and their dimensions.

Validity & Reliability Evidence

Validity and reliability are crucial in ensuring the accuracy and quality of research by addressing imperfections in scaling and aligning relevant dimensions (Sekaran & Bougie, 2016). While reliability guarantees consistent results from the measurement tools, validity verifies the appropriateness of the developed variables (Kothari, Research methodology: Methods & techniques, 2004). Assessing these factors is essential in any study. In this research, the validity and reliability of the data are tested, and the results are presented in chapter four.

Data Analysis

According to (Sekaran & Bougie, 2016), this study uses an online questionnaire to collect primary data for a quantitative research approach. The data analysis is

conducted using variance-based PLS-SEM with Smart PLS 3.3.2 software. PLS-SEM is chosen for several reasons: the data distribution is non-normal, with skewness and kurtosis values exceeding +1 and 1, respectively; the study is exploratory, focusing on the moderating and mediating effects of TMS; latent variable scores are needed for further analysis; and the model is complex, including moderators and mediators. PLS-SEM first ensures the reliability and validity of the constructs, then assesses the model's goodness of fit. Additionally, the Variance Inflation Factor (VIF) is checked, and the structural model is tested to evaluate the proposed hypotheses. Finally, the study examines the Coefficient of Determination (R^2), Predictive Relevance (Q^2), and Prediction-Oriented Analysis (PLS Predict).

DATA ANALYSIS AND RESULTS

The sample consisted of 52 export-oriented apparel companies in Sri Lanka. Respondents included finance managers (46%), accounting executives (33%), and senior management officers (21%), representing firms of varying sizes and export volumes. The majority of the firms had operated ERP systems for more than three years, ensuring adequate user experience and familiarity with system-driven financial processes. This composition reflects a balanced representation of the Sri Lankan export apparel sector and supports the generalizability of the findings.

Descriptive Statistics

Descriptive statistics provide an overview of the data, summarizing the central tendency, variation, and overall distribution of the variables.

Table 4: *Descriptive Statistics*

		TMS	ERP	STR	FP
N	Valid	52	52	52	52
Mean		3.68	3.80	3.61	3.99
Minimum		2.71	3.00	2.56	2.80
Maximum		5.00	5.00	5.00	4.60

Source: Authors compiled based on PLS-SEM Output

The mean scores for all variables reflect a generally positive perception among respondents. The highest mean score (3.9885) for FP indicates that organizations view their FP as satisfactory, which aligns with the effective implementation of ERP systems and STR.

The wide range of responses suggests varied experiences across different organizational contexts, enhancing the robustness of the data for further analysis.

Reliability Analysis

Reliability analysis evaluates whether the items within each variable consistently measure the intended constructs. Cronbach's Alpha is used, with a threshold of 0.7 indicating acceptable reliability. The dependability of each construct is sufficient, but FP has the highest reliability (alpha = 0.864). ERP Usage and TMS achieve the acceptable threshold while having somewhat lower reliability scores, indicating their eligibility for additional research.

Table 5: *Reliability Analysis*

Variable	Reliability (internal Consistency)	
	Cronbach's Alpha (> 0.7)	No of item
Independent Variables		
ERP	0.727	3
STR	0.810	9
Mediate Variable		
TMS	0.719	7
Dependent Variable		
FP	0.864	5

Source: Authors compiled based on PLS-SEM Output

Construct Validity

Construct validity ensures that the items used to measure a variable genuinely represent the concept being studied. This was evaluated through factor loadings, Average Variance Extracted (AVE), and CR. The items are strong markers of their constructions, as evidenced by the fact that all variables have factor loadings

greater than 0.5. The validity and reliability of each concept are further

confirmed by high AVE and CR values, which provide confidence when utilizing them to explain the correlations between the variables.

Table 6: *Construct Validity*

Variable	Item	Factor Loading (>=0.5)	AVE (>=0.5)	Cronbach's Alpha (>=0.7)	CR (>= 0.7)
ERP	ERP1	0.848	0.625	0.727	0.832
	ERP2	0.835			
	ERP3	0.678			
STR	STR1	0.733	0.510	0.810	0.903
	STR2	0.747			
	STR3	0.780			
	STR4	0.584			
	STR5	0.710			
	STR6	0.730			
	STR7	0.675			
	STR8	0.760			
	STR9	0.688			

	TMS1	0.644			
	TMS2	0.750			
	TMS3	0.770			
TMS	TMS4	0.603	0.502	0.719	0.875
	TMS5	0.760			
	TMS6	0.669			
	TMS7	0.743			
<hr/>					
	FP1	0.810			
	FP2	0.774			
FP	FP3	0.849	0.617	0.864	0.828
	FP4	0.899			
	FP5	0.713			

Source: Authors compiled based on PLS-SEM Output

Correlation Analysis

Correlation analysis identifies the strength and direction of relationships between variables. Pearson Correlation coefficients were used, with p-values indicating statistical significance. ERP usage and FP have a substantial positive connection ($r = 0.552$), indicating that ERP installation improves FP. The

strongest correlation ($r = 0.971$) is between TMS and STR, underscoring the critical role of top management in aligning organizational strategies. The correlation between TMS and FP ($r = 0.345$, $p < 0.05$) is weaker but still significant, highlighting TMS's mediating role in influencing financial outcomes.

Table 7: Pearson Correlations

		TMS	ERP	STR	FP
TMS	Pearson Correlation				
	Sig. (2-tailed)	$\sqrt{0.625}$			
	N	0.708			
ERP	Pearson Correlation	.841			
	Sig. (2-tailed)	.000	$\sqrt{0.625}$		
	N	52	0.791		
STR	Pearson Correlation	.971	.900		
	Sig. (2-tailed)	.000	.000	$\sqrt{0.510}$	
	N	52	52	0.714	
FP	Pearson Correlation	.345	.552	.394	
	Sig. (2-tailed)	.012	.000	.004	$\sqrt{0.659}$
	N	52	52	52	0.812

Source: Authors compiled based on PLS-SEM Output

Regression Analysis

variables (ERP Usage, STR) and the mediating variable (TMS) on FP.

Regression analysis evaluates the predictive power of the independent

Table 8: *Regression Analysis*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.601 ^a	.361	.335	.46838	2.568

Source: *Authors compiled based on PLS-SEM Output*

The model demonstrates that ERP Usage, STR, and TMS have a significant impact on financial outcomes by explaining 36.1% of the variance in FP ($R^2 = 0.361$). The model's dependability is validated by the Adjusted R^2 (0.335), which also prevents overfitting. These findings demonstrate the importance of STR and ERP systems in improving FP, particularly when backed by capable top management.

All variables have skewness and kurtosis values within the acceptable range of -1 to +1, indicating that the data is approximately normally distributed. This supports the validity of the statistical tests conducted.

Normal Distribution of Residuals

In this study, the residuals are checked for normal distribution. If the dots are close to the top of the diagonal line, it indicates a normal distribution. The results show that the residuals are normally distributed in this study.

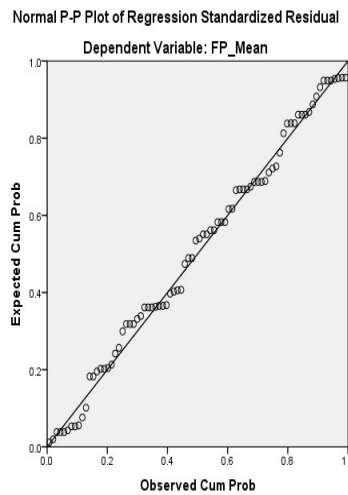


Figure 2: *Normal distribution of residuals*

Normality Testing

To ensure the validity of statistical tests, skewness and kurtosis were assessed for all variables.

Table 9: *Normality Testing*

	Skewness	Kurtosis
ERP	-0.006	-0.711
STR	0.232	-0.584
TMS	0.319	-0.178
FP	-0.580	-0.777

Source: *Authors compiled based on PLS-SEM Output*

Table 10: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.083	2	3.042	13.865	.000 ^b
1 Residual	10.750	49	.219		
Total	16.833	51			

Source: Authors compiled based on PLS-SEM Output

Table 11: Regression Coefficients Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1.942	0.452		4.298	0.000		
ERP	1.068	0.268	1.043	3.979	0.000	0.190	5.271
STR	0.558	0.268	0.545	2.079	0.043	0.190	5.271

Source: Authors compiled based on PLS-SEM Output

The ANOVA test evaluates the significance of the regression model by comparing the variance explained by the model to the error variance. In this study, the regression model, which includes ERP usage and STR as predictors of FP, yielded a highly significant F-value of 13.865 ($p < 0.001$).

This indicates that the independent variables significantly affect FP. The sum of squares for the regression was 6.083, and the residual variance was 10.750, resulting in a total sum of squares of 16.833. These findings confirm that the model explains a substantial portion of the variation in FP and is effective in predicting outcomes based on ERP and STR.

Regression Coefficients Analysis

The individual contributions of ERP and STR to FP are shown by the regression coefficients. The unstandardized coefficient for ERP is 1.068, meaning a one-unit increase in ERP usage results in a 1.068-unit increase in FP, holding other variables constant. STR has a positive impact on FP, however not as much as ERP, according to its unstandardized coefficient of 0.558.

The relative importance of the variables is further shown by the standardized beta coefficients. ERP is a better predictor of FP than STR (beta = 0.545), with a beta value of 1.043. Both variables are statistically significant, with ERP having a p-value of 0.000 and STR a p-value of 0.043. These results confirm the importance of ERP and STR in explaining variations in FP.

Mediation Analysis

Prior to conducting the mediation and moderation analyses, it was determined that these tests would be performed using two separate models within the PLS-SEM framework to ensure clarity and precision in interpreting the effects. The mediation model examined the indirect influence of ERP Implementation on Financial Performance through TMS, while the moderation model tested the interaction effect of ERP Implementation and TMS on Financial Performance. Mediation analysis was performed to assess whether TMS mediates the relationship between ERP Usage, STR, and FP. This analysis

helps determine if the impact of ERP and STR on FP is indirect through TMS.

ERP and TMS have a strong connection ($p < 0.001$). Both BootLLCI and BootULCI are the same indication, and the mediated association between ERPIMP and FP through TMS is weaker but still significant ($p < 0.05$). This suggests that the link is partially mediated by TMS. The results indicate that TMS acts as a partial mediator. Although STR and ERP have a direct impact on FP, TMS amplifies these advantages by encouraging improved organizational alignment and operational efficiency.

Table 12: Mediation Analysis

Direct Effect	Effect	Std. Error	t	p	LLCI	ULCI
	1.2709	.3356	3.7868	.0004	.5965	1.9454
Indirect Effect	Effect	BootSE	BootSE	BootLLCI	BootULCI	
TMS	-0.7611	.3744	-1.4939	-.0255	I	

Source: Authors compiled based on PLS-SEM Output

Moderation Analysis

Moderation analysis determines whether the relationship between ERP Usage and FP is strengthened or weakened by TMS or another variable such as STR.

Interaction terms ((INT_1) = (ERP × TMS)) were tested to see if TMS moderates the effect of ERP on FP. The

results show that the interaction is not significant ($p > 0.05$), meaning TMS does not significantly affect the strength of the ERP-FP relationship. Because of this, TMS mediates the interactions directly rather than acting as a moderator, and its influence is constant across ERP and STR levels.

Table 13: Moderation Analysis

Model	Coefficients	Std. Error	t	P	LLCI	ULCI
Constant	2.0613	3.1081	.6632	.5104	-4.1880	8.3106
ERP	1.4018	.8573	1.6451	.1086	-.3219	3.1256
TMS	-.7485	.9446	-.7924	.4320	-2.6478	1.1507

INT_1	-.0365	.2197	-.1663	.8686	-.4782	.4052	
Model Summary	R	R-SQ	MSE	F	df1	df2	P
	.5646	.3188	.2289	7.4870	3.0000	48	.0003

Source: Authors compiled based on PLS-SEM Output

Table 14: Summary of Hypothesis Testing

Hypothesis	Relationship
H ₁ : ERP Implementation impact the FP of export apparel companies in Sri Lanka.	Accepted
H ₂ : The TMS mediates the relationship between ERP Implementation and the FP of export apparel companies in Sri Lanka.	Accepted
H ₃ : TMS moderates the relationship between ERP Implementation and FP of export apparel companies in Sri Lanka.	Not accepted

DISCUSSION, CONCLUSIONS AND IMPLICATIONS

Discussion

This research examines the impact of ERP implementation on the FP of Sri Lankan export apparel companies, emphasizing the roles of TMS. The RBV and Contingency Theory frameworks are used in the study to examine the ways in which ERP and TMS support financial success. 52 companies received a standardized questionnaire with variables such as ERP use, STR, TMS, and FP. According to reliability analysis, FP has the highest dependability (0.864), while all variables fulfill internal consistency standards (Cronbach's Alpha > 0.7). Strong factor loadings, high AVE values, and CR scores all attest to construct validity.

Correlation analysis reveals that ERP and FP have a significant positive relationship ($r = 0.552, p < 0.001$), while STR and TMS are highly correlated ($r = 0.971, p < 0.001$). TMS's moderating role in FP is supported by the decreased association

between TMS and FP ($r = 0.345, p < 0.05$). ERP, STR, and TMS account for 36.1% ($R^2 = 0.361$) of the variance in FP, according to regression analysis. The link is partially mediated by TMS, whereas ERP and STR have direct effects. According to moderation analysis, TMS had no discernible effect on the ERP-FP relationship's strength. Overall, the results show how important ERP and TMS are for improving FP, with TMS serving as a mediator rather than a moderator. This research explores the relationship between ERP implementation, FP, and the role of TMS in Sri Lankan export apparel companies.

Key findings

H₁: ERP Implementation impact the FP of export apparel companies in Sri Lanka.

The analysis confirms a significant direct relationship between ERP implementation and FP. Because ERP systems streamline processes, improve decision-making, and optimize resource management, they dramatically improve financial outcomes,

as evidenced by the strong positive connection ($p < 0.001$). The results are consistent with earlier studies that highlight the function of ERP systems in improving operational efficiency and profitability, such as (Gangwar, 2017) and (Jayeola et al., 2022). ERP implementation has been crucial to Sri Lanka's ability to compete in international markets. ERP's significance as a stand-alone component for FP in the apparel industry is highlighted by its immediate impact on FP.

H₂: The TMS mediates the relationship between ERP Implementation and the FP of export apparel companies in Sri Lanka.

The organizational culture, resource allocation, and strategic vision required for the successful integration of ERP systems are provided by strong TMS. According to the mediation study, ERP has a direct impact on FP, but this effect is amplified when significant TMS is present. The strong ($p < 0.001$) association between ERP and TMS is consistent with earlier research (e.g. (Soliman & Karia, 2017) that highlights the importance of leadership in bolstering ERP systems. Though statistically significant ($p < 0.05$), the mediated effect of ERP on FP through TMS is less pronounced, suggesting that TMS mediates the link to some extent. TMS also improves STR, which helps FP even more. Strong ($p < 0.001$) correlations between STR and TMS highlight the importance of leadership in coordinating ERP with strategic objectives. ERP's potential advantages might go unused in the absence of a robust TMS, which would lessen its ability to increase FP.

H₃: TMS moderates the relationship between ERP Implementation and FP of export apparel companies in Sri Lanka.

Moderation analysis reveals no significant evidence supporting the hypothesis that TMS moderates the relationship between ERP implementation and FP. The

interaction term between ERP and TMS was found to be statistically insignificant ($p > 0.05$), suggesting that the effect of ERP on FP does not depend on the level of TMS. This result implies that although TMS is essential to ERP performance, its impact is independent of ERP utilization levels. Additionally, it emphasizes how TMS directly affects ERP's financial results rather than moderating them. As a result, regardless of TMS's degree of process involvement, its contribution to improving ERP effectiveness is constant.

The findings of this study underscore that while TMS is essential for the successful performance of ERP systems, its role is more prominent as a mediator rather than a moderator in the relationship between ERP implementation and FP. Both ERP systems and strategic alignment (STR) demonstrate a significant positive impact on FP, highlighting their critical contribution to organizational success. TMS serves as a vital link, reinforcing the importance of strong leadership in effectively bridging ERP implementation with improved financial outcomes. For Sri Lankan export-oriented apparel firms, focusing on effective ERP adoption while ensuring robust top management support can lead to enhanced financial performance. In the context of an increasingly competitive global market, these efforts can promote greater strategic alignment, operational efficiency, and overall organizational competitiveness.

CONCLUSION

This study investigates if ERP deployment and FP in Sri Lankan export apparel companies are mediated or moderated by TMS. The findings indicate that TMS has a role in mediating this link to some extent by offering incentives, training, tools, and advice that enhance ERP alignment with business objectives. TMS does not, however, substantially modify the relationship, therefore its impact is constant irrespective of ERP usage levels.

The results highlight the necessity for a balanced approach by indicating that although TMS is crucial, over participation may stifle employee innovation.

IMPLICATIONS AND RECOMMENDATIONS

Theoretical Contributions

This research uses the RBV theory to explore the relationship between ERP implementation and FP in Sri Lankan export apparel companies. It positions TMS as both a mediator and moderator. The findings reveal that TMS partially mediates the ERP-FP link, enhancing resource allocation and STR. However, TMS challenges the static RBV assumptions by not considerably moderating this association. The study resolves conflicts in previous research and clarifies the effect of ERP on financial results by introducing a dynamic mediating–moderating approach.

Practical Contributions

This study emphasizes how crucial flexible and well-balanced managerial assistance is to the effective deployment of ERP in export apparel companies. It highlights that in order to maximize benefits, TMS should strategically match with ERP phases, guaranteeing sufficient resources, training, and knowledge-sharing. However, by limiting user agency and creativity, overzealous managerial intervention might impair financial success. It is crucial to have a flexible assistance strategy that can be modified in response to feedback and business circumstances. According to the survey, ERP systems can also increase decision-making, streamline procedures, and save costs. By providing adaptive support, managers can maintain these results and guarantee that ERP is in line with long-term corporate objectives. These observations help managers and legislators integrate ERP systems

efficiently, promote long-term growth, and keep the apparel industry competitive.

Implications of the study

A balanced approach to TMS during and after ERP deployment is advised by this study for Sri Lankan export apparel industries. TMS, which offers resources, support, and training, is essential for ERP success. However, by restricting employee independence and inventiveness, overzealous managerial participation might impede FP. In order to provide adequate assistance and promote an atmosphere of participation and information exchange, managers should refrain from becoming overly involved. Optimizing ERP benefits requires routinely evaluating user feedback and modifying support systems. To further understand ERP dynamics, future studies should also look into other elements that influence ERP success and the effects of TMS in other industries.

Limitations and Future Research Directions

This study explores the impact of ERP implementation and TMS on the FP of export apparel companies in Sri Lanka but has several limitations offering opportunities for future research. First, the study is limited to the Sri Lankan apparel sector, making it difficult to generalize the findings to other industries or regions. ERP implementation and TMS may be impacted differently in Sri Lanka than in other nations or industries due to the country's distinct economic, cultural, and industrial setting. Therefore, care must be taken when extrapolating these findings. Second, there are just 52 companies in the survey, which is a small sample size. Future research with a larger sample size could provide more robust findings and better validate the observed relationships, considering variations within the apparel sector. Third, although TMS is multifaceted, it was treated as a single

construct. To gain a more thorough understanding of ERP success, future research should investigate different TMS dimensions, such as resource allocation, change management, and vision sharing, to understand their individual and collective effects on ERP implementation and FP. This will provide deeper insights into how leadership affects ERP success. Fourth, other organizational factors, such as organizational culture, employee readiness, and technological infrastructure, may be important in ERP-FP relationships. Finally, longitudinal studies could examine the long-term effects of ERP on FP, capturing evolving impacts over time. A more dynamic knowledge of ERP's impact and the continuous function of TMS in maintaining ERP success would be possible with research conducted at various time points.

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