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Workhorse or White Elephant? End User Acceptance of ERP System in a Shared Service Center

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Abstract

Businesses globally heavily invest in Enterprise Resource Planning (ERP) implementation to meet high customer demands and maintain competitiveness. Despite significant investments, underutilization hampers reaping the system's full benefits, leading to stagnant or adverse performance. Hence, this study aims to uncover reasons for the lack of end-user adoption of ERP systems. It focuses on the correlation between performance expectancy, effort expectancy, social influence, and organizational support in determining ERP system acceptance by end users. This study utilized a quantitative methodology. Data were collected from 392 respondents within a Malaysian shared service center. Multiple regression analysis was conducted employing the UTAUT model and perceived organizational support theory to evaluate and interpret the collected data. The study's key findings include the significant positive association between performance expectancy and ERP system adoption, reinforcing the influence of effort expectancy on technology adoption. Despite its positive effects, social influence had little effect on end-user adoption. Additionally, it was observed that ERP system adoption was consistently facilitated by organizational support. This study confirms the essential factors that drive the adoption of ERP systems by end-users. It emphasizes the crucial role of leadership in prioritizing these elements for organizations to enhance user acceptance and ensure the successful implementation of ERP systems.

Keywords: Enterprise Resource Planning; Shared Service Center; Performance Expectancy; Effort Expectancy; Social Influence; Organizational Support.

1. Introduction

Since the 1990s, many organizations worldwide have invested significant amounts of money to replace outdated legacy systems with Enterprise Resource Planning (ERP) systems [1, 2]. Organizations face challenges in meeting customer expectations, navigating global competition, and maintaining competitiveness amid global market shifts. To address these challenges, leaders implemented measures to improve quality, reduce costs, enhance efficiency, and retain clients [1]. One effective strategy to improve efficiency and efficacy in business processes is to use information technology to regulate and standardize all sections and departments of an organization. Deploying ERP systems is a key approach for providing a company with a set of integrated applications that incorporate different elements of business activity [3]. Using Information Technology to regulate and standardize all sections and departments of an organization is an effective strategy to improve efficiency and efficacy in business processes [1, 4].

Companies are increasingly seeking efficiency and cost reductions to stay competitive. They focus on core operations and reorganize support activities to streamline value chains. Shared services have gained popularity as a way to centralize

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and streamline support services due to their economic advantages and ability to develop new capabilities. Shared service centers (SSC) are organizational structures that operate as independent organizational units and combine back-office operations from various business units within the company. About 75% of Fortune 500 organizations implement shared service models to improve performance [5]. Studies reveal that businesses using Shared Service Centers (SSCs) can save costs by as much as 30 percent in comparison to businesses using traditional organizational structures [6].

In order to further enhance their efficiency and effectiveness, many SSCs are turning to ERPs. Implementing an ERPS in an SSC can bring numerous benefits, including improved access to accurate and timely information, streamlined processes, and increased efficiency [3, 7]. This implementation, however, comes with its own set of challenges, such as careful planning and coordination, training and change management, data migration, and ensuring alignment with the organization's overall goals and objectives [8]. Organizational leaders have poured a great deal of money into ERP systems (ERPS), but not all have yielded the intended results [1, 2]. Though ERPS has been used by organizations all over the world to provide a more standardized and efficient system, its advantages layout did not happen in many firms and was usually unsuccessful [9, 10–12]. It is rare for the system to achieve its absolute potential [8, 9], and the reasons for these issues are not well understood [13].

Empirical research demonstrates that ERPS end-user adoption is lacking all around the world [1]. According to previous research, employees only use ERPS to a limited extent, despite the organization's significant investment in the system's implementation. Underutilization of the ERPS prevents the business and its users from reaping the full benefits of the ERPS, resulting in stagnant or negative performance improvements. End-users frequently fail to use the system effectively, posing significant issues for a variety of companies [4]. Low adoption rates among end users are a major reason for firms not achieving the benefits of ERPS [1]. User acceptability is crucial for assessing ERPS success [1, 14–17], as users must accept and effectively use the systems for their daily tasks. Misalignment between organizational demands and data usefulness [11, 14, 16] and lack of understanding [2] are common causes of system failure. Studies also observed how the failure of users to adopt the system has resulted in significant harm and inefficiencies in a variety of businesses [14, 18, 19].

On the other hand, numerous academic studies have examined SSCs. These studies underscore its substantial influence on organizational dynamics in terms of cost savings, efficiency, process optimization, and improved service quality [20–23], robotizing the SSC [23], the challenge of managing the SSC [6, 24, 25], and the implementation of the SSC [26]. These studies highlight the crucial role that SSCs play in promoting standard practices, increasing the scalability of businesses, and centralizing vital functions like information technology (IT), financial management, and human resources (HR). Studies by Richter & Brühl [26] reveal a positive relationship between high-level mechanistic organizational structure and the success of SSCs. All these studies' purpose is to explore the configurations of SSC characteristics, their performance implications, and the dynamics of SSC configurations during their implementation and efficiency in cost and process.

The ERPS has been tested on a global scale to determine user adoption [1, 4, 20, 21]. However, there is little evidence in the empirical literature on ERPS adoption in the SSC context. Malaysia, ranked third in AT Kearney's 2021 Global Services Location Index, is considered the "rising Asian tiger" for Global Shared Services. Malaysia is also the top ASEAN country for SSCs and centralized business operations [9]. Hence, research on factors affecting ERPS user adoption in Malaysia is increasingly needed to determine if ERPS in SSCs are the workhorse or white elephant of the organization. The major goal of this study is to investigate the factors that influence end-user adoption of ERP systems in SSCs. This study aims to examine the relationship between performance and effort expectancy with the level of end-user adoption of ERP systems. In addition, it examines the effect of social influence and organizational support on the level of end-user adoption of ERP systems in SSC.

From this point on, the paper is divided into the following sections: Section 2 focuses on the related literature review. Section 3 presents the research methodology utilized in this study. The results and their interpretations are presented in sections 4 and 5, respectively. Lastly, in Section 6, we discuss the conclusion of the study.

2. Literature Review

2.1. Enterprise Resource Planning

ERP is a group of interconnected bundled software that embody a company's business processes [1, 2]. ERPS is thought to give organizations a competitive advantage due to its ability to boost corporate productivity, improve performance, and improve efficiencies across many business areas [10]. It is capable of addressing far more tough management difficulties, resulting in greater production and operational effectiveness [11]. The innovative development of an ERPS enables effective data gathering, storing, and transfer that is accessible to large groups of users [3] as well as the acceleration of transparency within the organization [12]. Aside from that, ERPS operators should always respect the specified procedure and designate specific roles in order to better regulate user access, which contributes to the growth of discipline inside the organization [1, 12]. Furthermore, by utilizing ERPS effectively and encouraging

information sharing among users, time can be saved [13]. ERPS also aids decision-making by facilitating accountability and fast report development, as well as better data visibility and transparency, which improves audibility from a financial accounting aspect. ERPS integrates numerous company processes, including supply chain management, accounting, finance, marketing, sales, as well as human resource management [1, 3].

ERPS was introduced in 1990 to replace the previous legacy system [28, 29]. According to research, ERPS aids in enhancing the efficacy of day-to-day tedious tasks, allowing analysts and accountants to concentrate further on the key elements of the data [30]. Studies observed that ERP can boost an organization's competitive edge by establishing efficiencies through centralized resources and interconnected processes, which results in lower operating costs, improved efficiency, greater decision accuracy, and reinforced organizational restructuring [31].

The primary goal of implementing an ERP system is to increase productivity and improve organizational competitiveness while reducing operating costs [32, 33]. Tsai et al. [34] confirm that ERPs enhance financial competence and market competitiveness. Most organizations with long-term strategic goals to stay competitive agree that installing ERPS adds to their comparative advantage [35]. ERPS empowers organizations to truly comprehend the perks of ERPS with regard to decision-making, cost reductions, cut turnaround time, and enhanced efficiency and productivity [4, 36]. Additionally, ERPS allows accounting applications to be integrated into business processes, increasing the quality and agility of information collection and processing [3]. ERP serves a vital purpose by integrating financial data for better reporting and company continuation [37].

One of the features of ERPS that entices organizations to engage in installation is their capacity to collect data in a centralized manner and maintain consistency of data across business units [33]. Liu et al. [28] conform with this in their research, which demonstrates that ERP provides unified data and information that is readily accessible. With the system's ability to create unified and advanced relevant data, decision-making processes can be accomplished comprehensively and on a timely basis [36]. These effectively eliminate data duplication and simplify company processes, resulting in significant cost reductions. ERPS integration and standardization across the enterprise result in increased visibility and centralized control over numerous functional areas [37]. Using the finest practices throughout the organization from the ERP installation will contribute to increased efficiency and efficacy, lowering the risk of potential error and promoting organizational growth [38].

Since the 1990s, investments in ERPS implementations have been tens of trillions of dollars globally [1, 2]. The success or failure of ERPS is highly dependent on user behavior toward the system. The commitment of corporate leaders to remove legacy systems and replace them with ERPS is based on the belief that the system will improve data management, quality, dependability, integration, audibility, and efficient reporting in the long run [3]. However, during the post-installation process, the component where problems with work performance occur raises crucial considerations for institutions about the extent of ERPS implementation importance [11, 39]. The amount of user toleration or rejection of the ERPS is not completely understood. Lack of system adoption has reduced the optimal usage of ERPS, obstructing the achievement of the system's full potential and resulting in a reduction in overall company visibility [1, 20]. Besides, resistance to adopting ERPS has resulted in a drop in data security and quality, resulting in a fall in reporting inaccuracy and, as a result, a decrease in the report's dependability [10].

2.2. Theoretical Background

The implementation and usage of ERP systems within organizations have been extensively researched using various theoretical frameworks to understand their complexities. Studies utilizing the technology acceptance model (TAM) focus on individuals' perceptions and attitudes towards technology, assessing how users' perceived usefulness and ease of use affect their intention to use ERP systems. This model has been valuable in understanding the behavioral aspects influencing ERP adoption among employees [40–43]. The innovation diffusion theory explores how different individuals within an organization accept and adopt ERP systems, helping tailor strategies for smoother adoption across different user groups [44, 45]. Change management theories have assisted researchers in recognizing and managing resistance to change, preparing the organization, and navigating the complexities of introducing an ERP system [46, 47]. On the other hand, the resource-based view (RBV) focuses on the internal resources and capabilities of an organization, assessing how the alignment of ERP functionalities with organizational processes and goals can contribute to competitive advantage [48].

In addition, the studies employing the Unified Theory of Acceptance and Use of Technology (UTAUT) integrate various elements from different technology adoption theories to understand the adoption and usage of technology within organizations [49, 50]. UTAUT was created on the basis of eight conjectures, emphasizing four crucial formulations: effort expectancy (EE), social influences (SI), performance expectancy (EP), as well as facilitating conditions (FC) [33]. Three construct variables, PE, EE, along SI, all seem to influence the intent to utilize information technology. However, the fourth construct (FC) is considered an immediate influencer because it assesses firsthand usage and so may not be used to predict behavioral resolution [33]. The key influencer is performance expectancy (PE), as defined by Venkat "the extent to which a user anticipates that utilizing the system would assist him or her in achieving advances in job performance" [33]. The association between fruition expectations, as well as behavioral resolution has been shown to be substantially influenced by gender along with age, with men and younger people being more likely to be affected [14, 19, 28].

UTAUT is a comprehensive framework that consolidates various factors that influence ERP adoption. UTAUT's applicability to diverse organizational settings makes it suitable for studying ERP adoption in SSCs. Its focus on specific determinants like performance expectancy, effort expectancy, and social influence helps identify critical factors influencing ERP adoption. UTAUT's adaptability, comprehensiveness, and empirical grounding make it an effective choice for understanding the complexities of technology acceptance and use within SSCs.

2.3. Hypothesis Development

User acceptability is crucial for the success of an ERP system adoption [28, 51]. The main cause of ERP adoption failure is user reluctance and indecision to use the system. Understanding consumer acceptability and management approval are essential determinants for efficient ERP use. Underutilization of ERPS hinders the intended outcome and ERP usage is highly dependent on user acceptability [3, 8]. Many companies have successfully deployed ERPS, but others struggle to achieve their expected business value due to user aversion [43].

Performance expectation in ERP refers to the extent to which a consumer anticipates that using a system will improve their work productivity. This expectation is evaluated using perceived usefulness, job fit, outcome expectations, and relative advantage [52]. Job fit is a concept that suggests that the acquisition of advanced technology can improve work performance [37]. Relative advantage refers to the degree to which an individual believes a new system is significantly more useful than the previous one [53]. The construct's final component is resulting expectancies, which are separate from job-related performance expectations. Personal outcome anticipation, such as self-esteem and success, is separate from job-related performance expectations [54]. Research has shown a strong correlation between performance expectations and user adoption of technology in various industries [55-57].

Effort expectancies refer to the ease of use associated with a system, consisting of perceived ease of use, complexity, and actual ease of use [37, 58]. Perceived ease of use is derived from the technology adoption paradigm, implying that users find high technology user-friendly. Complexity is a consumer's assessment of challenges in using a computer program [37, 58]. Finally, ease of use is a concept that relates to innovation. Studies suggest that effort expectancy significantly influences user adoption of ERP [49, 59]. However, others argue that effort expectancy can negatively impact user behavior in open-source software [60].

Social impact in an organizational context refers to an individual's personal embodiment of their subjective identity and personal accord with others. Subjective culture is linked to norms in the theory of reasoned action [61], which encompass thoughts, ideals, values, encounters, attitudes, responsibilities, and human-made surroundings. The UTAUT framework defines social influence as the extent to which a person feels others should use a new system [62]. Social impact is formed by subjective norms, social variables, and images [58, 63]. The diffusion of technology model incorporates reputation as a final notion, highlighting the positive impact of technology usage on an individual's social status and reputation [58]. Research has shown that social influence plays a significant role in the acceptance and adoption of technology, particularly in the context of homegrown ERPS [25, 49, 64]. However, some studies have found that social influence is only marginally significant, possibly due to users' personal characteristics. Work colleagues are a starting point of social influence that fuels certain circumstances, shaping the organization's outcomes. There are several approaches to investigating colleagues' impact on the prime employee, including the averaged approach, the social network technique, and the relational technique. These approaches help to understand the relationship between social influence, technology adoption, and employee performance [26].

Organizational support is the effort of an organization to understand and appreciate the mental state requirements of its employees [28]. It is a key driver of work efficiency and organizational devotion [29]. Anticipated organizational support refers to the belief that the organization listens to and cares about the employee's needs and well-being. This support can be demonstrated through resources, tools, and empowering programs. It is often seen as providing stable employment and dedication [29]. Research shows that anticipated organizational support leads to positive outcomes such as a stimulating attitude towards work, encouraging behavior, and improved health. In the context of information technology adoption, management commitment includes training and support, trust in the system, and project communication [30]. Training is crucial for successful ERPS adoption, as it helps users gain firsthand experience and understand the system's value [46]. Shared belief is also essential for successful ERP adoption, as it increases the consumer's self-empowerment and understanding of the system's benefits [31, 41].

As a result, the following hypotheses have been formulated for this study:

H1: Performance expectancy has a positive correlation with end-user acceptance of the ERP systems;

H2: Effort expectancy has a positive correlation with end-user acceptance of the ERP systems;

H3: Social influence has a positive correlation with end-user acceptance of ERP systems;

H4: Organizational support has a positive correlation with end-user acceptance of ERP systems.

3. Research Methods

A quantitative design was selected for this research. The motive of this quantifiable (quantitative) transverse study is to investigate the customized UTAUT framework, valence expectancy, as well as organizational support in establishing the elements that impact consumer adoption of the ERPS in carrying out their day-to-day tasks in organizations, particularly in the context of shared service centers in Malaysia.

Figure 1 presents the theoretical framework and hypotheses of the study.

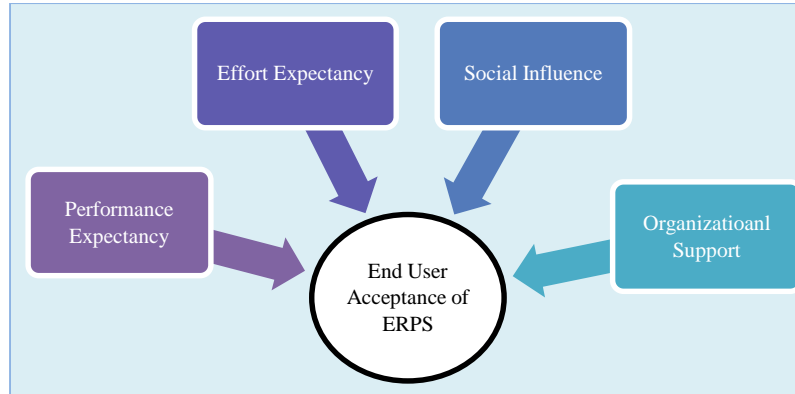


Figure 1. Theoretical Framework

3.1. Research Sampling

The research sample included the workforce who have used ERPS to execute their tasks in organizations of the shared services center located in the Klang Valley, Malaysia. The participants were pre-selected based on their previous experiences with ERPs such as SAP, Oracle, and Microsoft Dynamics. Respondents from diverse industries, education levels, age ranges, ethnic backgrounds, and income levels were included in the study. The present study utilized Krejcie & Morgan's [65] method, supported by the National Education Association's spreadsheet, to calculate respondent numbers. With a demographic of 45,000, 381 respondents were required; thus, our study comprises data from 381 completed responses to meet this criterion.

The study utilized purposive sampling, which was chosen due to its effectiveness in situations with limited resources and time constraints [66, 67]. Purposive sampling involves selecting respondents based on specific criteria, as judged by individuals familiar with the study [6, 68].

The study used a self-administered questionnaire distributed through Google Forms to engage respondents from the selected SSC. The questionnaire, which included 25 questions, was distributed to participants within a specified timeframe. Participants were encouraged to complete the questionnaire independently, ensuring anonymity and confidentiality. The study followed ethical standards, including participant confidentiality and data protection guidelines.

3.2. Measurement of Item and Scale

Based on the previous literature, measurement items and scales were developed. This study followed the UTAUT structure components to conduct the quantitative analysis [62, 69]. These include social influence, facilitating factors, performance expectancy, and effort expectancy. Prior research was used to generate the scales for UTAUT constructs [57, 69, 70]. Table 1 provides precise measurements for each built measuring scale. Each item is rated on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Table 1. Definition and measurement of the Constructs

Construct	Definition	No. of Item	Adapted sources
Performance Expectancy	The degree to which the user expects that the system will enhance his or her job performance.	4	[62, 63, 71]
Effort Expectancy	The degree of user-friendliness of the system	4	[58, 69, 70]
Social Influence	Significant others' belief that the new system should be implemented by the individual.	3	[57, 69, 70]
Facilitating Condition	An individual's belief that the system is supported by technical and organizational infrastructure	5	[57, 69, 70]
End user Acceptance	The degree of satisfaction and approval that end users have towards any system, service, or product	4	[6, 70]

3.3. Method of Analysis

The study used descriptive statistics to illustrate the dataset's properties together with uniformity. The analysis includes skewness-kurtosis analysis, reliability analysis, and regression analysis. The reliability of the constructs was assessed by Cronbach's alpha. Finally, to assess the linear association between independent and dependent variables, multiple regression analysis was applied. Figure 2 presents an overview of the research phases for the present study.

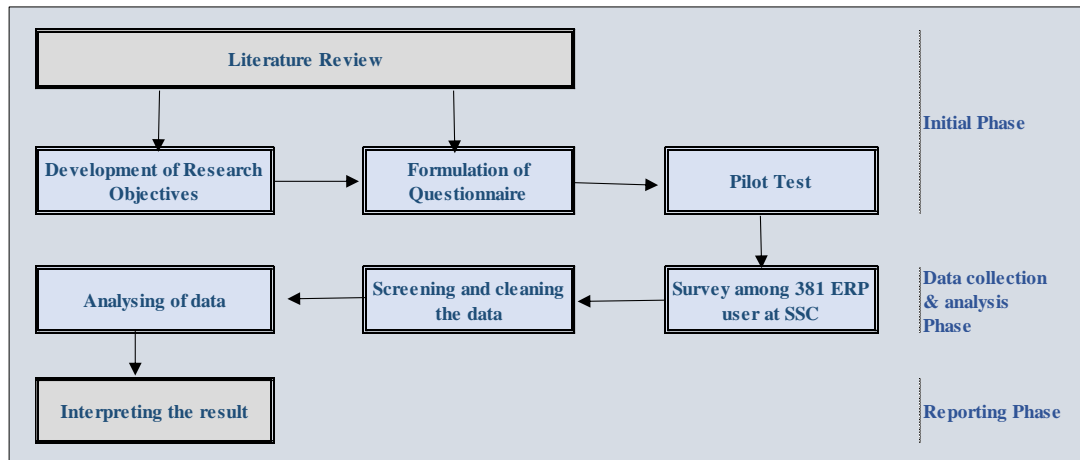


Figure 2. Overview of research phases

4. Results

4.1. Reliability Analysis

The Cronbach Alpha for the variables is shown in Table 2. It falls between 0.973 and 0.980. The user acceptability of the ERP system is the dependent variable, and its Cronbach Alpha value is 0.978, while the performance expectancy's Cronbach Alpha is 0.980. The effort expectancy is the second independent variable, valued at 0.973, and social influence and organizational support are the third and fourth independent variables, valued at 0.973 and 0.973, respectively. All the constructs show good overall consistency, so all of them are included for additional study.

Table 2. Reliability analysis of study variables

Item	Constructs/Variable	Cronbach's Alpha
DV	End-user acceptance	0.98
IV1	Performance expectancy	0.98
IV2	Effort expectancy	0.97
IV3	Social influence	0.97
IV4	Organizational support	0.97

4.2. Normality Analysis

The skewness of all the statistical values ranges from -0.678 for Organizational Support to 0.067 for Performance Expectancy (Table 3). As suggested by past research, Organizational Support (-0.678) and Effort Expectancy (-0.534) are moderately skewed whereas the other variables Performance Expectancy, Social Influence and User Acceptance are approximately symmetric. Meanwhile, the kurtosis asymmetry value for all the variables ranges from -0.372 to 1.258, which is regarded as admissible for establishing the normal univariate distribution.

Table 3. Normality analysis of study variables

Variables	Constructs/Variable	Skewness		Kurtosis	
		Statistics	Std error	Statistics	Std error
IV1	Performance expectancy	0.067	0.123	-0.372	0.246
IV2	Effort expectancy	0.053	0.123	0.838	0.246
IV3	Social influence	-0.080	0.123	-0.323	0.246
IV4	Organizational support	-0.678	0.123	1.258	0.246
DV	End-user acceptance	-0.472	0.123	0.336	0.246

4.3. Descriptive Analysis

This section contains the results of a descriptive analysis of the respondents' demographics. The first part of this section contains the results from the frequency distribution of the respondent's profile, including age, gender, duration of employment, type of ERP system used, and total duration using the ERP system. The second part of this section contains the results from the mean and standard deviation (SD) analysis of each variable.

4.3.1. Frequency Distribution Analysis

Table 4 shows the respondent's age groups, ranging from 25 to 54 above. The majority (48%) are aged 25–39, followed by 40–54 (36.7%), above 54 (12.2%), and under 25 (3.1%). Out of 392 respondents, 176 are male and 216 are female, with females accounting for 55.1 percent.

Table 4. Descriptive Statistics

Particulars	Frequency	Percent
<i>Age</i>		
Under 25	12	3.1
25-39	188	48.0
40-54	144	36.7
Above 54	48	12.2
<i>Gender</i>		
Male	176	44.9
Female	216	55.1
Total	392	100

Table A1. in Appendix I presents statistics on service duration and ERP usage. Respondents were grouped into six categories based on their service duration, with the majority having served between 1-5 years and more than 20 years. Figures 3 and 4 show the different types of ERPs used by the respondents and the duration of use. The study revealed that most respondents use SAP software, and 69.4% of them have been using ERPs for more than three years.

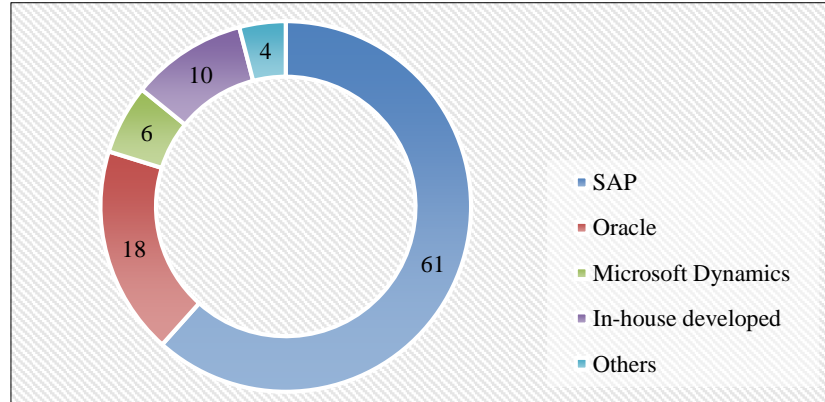


Figure 2. Uses of Different ERPS by the Respondents

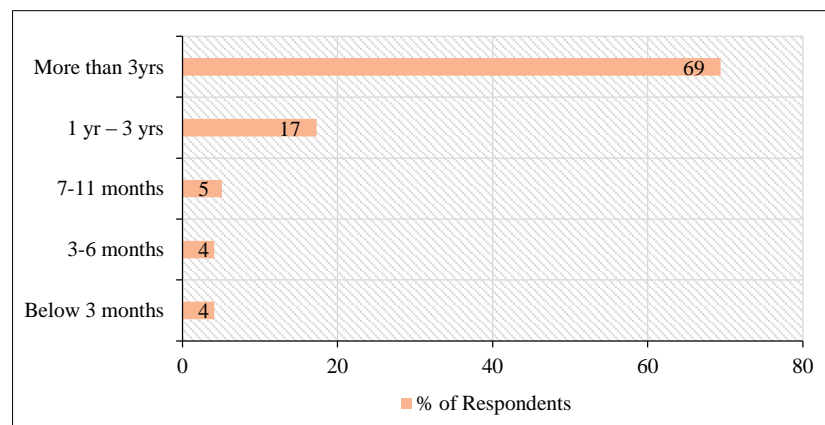


Figure 3. Duration of using the ERP System

4.3.2. Mean and SD Analysis of the Variables

Table 2A in Appendix I presents the Mean and Standard Deviation of End-user Acceptance of ERP Systems. The overall perception of end-users towards ERP systems is positive, as reflected in their pleasant experience (mean = 3.79) and intent to frequently utilize the systems in the future (mean = 3.85). When it comes to performance expectancy, users strongly perceive the utility of ERP systems in their job tasks (Mean = 4.20). They believe that these systems enhance productivity and make tasks easier, reflecting a high level of confidence in the system's performance benefits. As far as effort expectancy is concerned, interactions and usage of these systems are generally clear and understandable (mean = 3.78), but opinions vary on the ease of becoming skilled at using them (mean = 3.69 to 3.77), indicating a moderate level of ease in learning and utilizing these systems.

Regarding the influence of social factors on ERP usage, users display a moderate level of influence from people whose opinions they value or who hold importance in their lives (Mean = 3.68–3.73), indicating a noticeable but not overwhelming impact. In terms of organizational support, users perceive substantial support in resource availability (Mean = 4.07) and possessing the necessary knowledge (Mean = 4.04). However, the score for the completeness of the provided training received was relatively lower (Mean = 3.77), indicating potential room for improvement in training comprehensiveness.

4.3.3. Multiple Regression Analysis

Regression analysis is a statistical technique used to estimate the association between variables that have a cause-and-effect relationship [40]. The main intention of employing multiple regression in this research is to evaluate the relationship between user acceptance of ERP and different independent variables and, on top of that, develop a linear equation between them. According to Table 5, the ANOVA test in this research yielded an F-value of 3191.299 and a p-value of <0.001. This indicates that at least one of the independent variables—performance expectancy, effort expectancy, social influence, and organizational support—can explain the dependent variable. Therefore, the model fits the data.

Table 5. ANOVA

	Sum of Squares	df	Mean square	F	Sig.
Regression	203.187	4	50.797	3191.29	<0.001 ^b
Residual	6.16	387	0.016		
Total	209.347	391			

Dependent Variable: User Acceptance of ERP System.

^b Predictors: (constant), Performance Expectancy, Effort Expectancy, Social Influence, Organizational Support.

Table 6 presents the summary of the multiple regression analysis. The R-value obtained is 0.985, indicating a higher degree of simple correlation. Furthermore, the R Square value is 0.971, indicating that the independent variables, namely performance expectancy, effort expectancy, social influence, and organizational support, explain 97.1% of the variance. This also implies that these variables have a significant influence on the user acceptance of ERP systems.

Table 6. Model Summary

R	R ²	Adjusted R ²	Std. error of the estimate
0.985 ^a	0.971	0.97	0.126

^a Predictors: (constant), Performance Expectancy (IV1), Effort Expectancy (IV2), Social Influence (IV3), Organizational Support (IV4).

Table 7 displays the coefficient outcome of multiple linear regression, which shows that all four variables in the table are critical predictors of user acceptance of the ERP system. These variables are performance expectancy, effort expectancy, social influence, and organizational support. The p-values for all four variables are less than 0.05, indicating their significance. Furthermore, the study shows that all of the variables are positively and significantly related to user acceptance of ERPS.

Table 7. Coefficients

Variable	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
Constant	-0.01	0.053		-2.19	0.028
Performance expectancy	0.08	0.026	0.064	3.19	0.002
Effort expectancy	0.68	0.034	0.652	19.94	0.001
Social influence	0.13	0.028	0.133	4.64	0.001
Organizational support	0.30	0.031	0.276	9.63	0.001

^a Dependent Variable: User Acceptance of ERP System

4.3.4. Hypothesis Testing

The results from the hypothesis testing are presented in Table 8, indicating that all four hypotheses (H1, H2, H3, and H4) were accepted.

Table 8. Hypothesis Testing Summary

Hypothesis	Result	p-value/s
H1: Performance expectancy has a positive correlation on end-user acceptance of ERPS	Accepted	0.02
H2: Effort expectancy has a positive correlation with end-user acceptance of ERPS	Accepted	0.01
H3: Social influence has a positive correlation on end-user acceptance of ERPS	Accepted	0.01
H4: Organizational support has a positive correlation with end-user acceptance of ERPS	Accepted	0.01

5. Discussion and Implications

5.1. Discussion

The primary objective of this research was to analyze the attributes that impact the user adoption of ERP systems in relation to shared service centers in Malaysia. The research analyzed user adoption using the attributes in the Unified Theory of User Acceptance and Use of Technology (UTAUT) structure and also added another attribute to the research framework, which is organizational support. The high correlation between the items that measure certain attributes in the UTAUT framework shows that they reliably measure the intended constructs. This consistency significantly improves the credibility and reliability of the UTAUT framework as a tool for understanding how end-users accept ERP systems. It means that the variables within the framework are coherent and dependable, providing a strong foundation for predicting and analyzing end-users' acceptance behaviors toward ERP systems.

The main aim of the research was to investigate whether there is an interrelationship between the expectation of performance and the level of acceptance of ERP systems by end-users. In other words, the study aimed to determine whether employees are more likely to embrace new technology if they believe it can help them perform their jobs better. The reliability analysis, normality analysis, descriptive analysis, and multiple regression analysis all demonstrate that performance expectancy has a positive impact on the adoption of ERP systems by users.

The positive relationship found in this study between performance expectancy and user adoption of ERP systems is similar to that found in other studies [30, 28, 63]. Tarhini et al. [32] conducted a study in Lebanon and discovered that performance expectancy has a remarkable impact on motivating end users to utilize and adopt ERP systems in the banking sector, concluding that performance expectancy is the strongest predictor of user acceptance among other variables examined. In a cross-sectional study with 1,562 respondents to evaluate the premise suggesting performance expectancy positively impacts the end user's willingness and behavioral intentions to utilize technology [63]. Moreover, performance expectancy is found to have a strong link with user acceptance of the new ERP system in the city of Trikala, Greece (transportation) [28].

Another key objective of the research was to examine the interrelationship between effort expectancy and the level of end-user adoption of ERPS in SSCs. Effort expectancy was expressed as "the degree of ease with which a system can be used". The results from the study reveal that effort expectancy has a positive impact on the user adoption of ERP systems that align with the existing studies [69]. The findings of this study support the idea that when users perceive technology as easy to use, they are more likely to intend to use it, which in turn leads to their adoption of it [72, 73]. While most prior research has found this relationship to be positive [73, 74], some studies argue that the perceived ease of use has a negative effect on the intention to use and accept new technology [57, 72]. The researcher suggests that one of the reasons for this contradiction might be related to the characteristics of the sample group [74]. Specifically, 67% of the respondents were technology professionals with extensive experience, and 70% of them were between the ages of 50 and 67, as reported in Kanellou & Spathis [3]. As previous studies have shown, both age and experience can affect the impact of perceived ease of use [69, 74].

The third goal of the study was to examine the interrelationship between social influence and the level of end-user adoption of ERP systems. To put it another way, the study aimed to test the extent to which external circumstances affect user behavior towards ERP systems, regardless of the system's attributes. Social influence is defined in the UTAUT model as the "extent to which an individual feels that significant others believe he or she should utilize the new system" [3]. It is seen as a straightforward predictor of user acceptance of technology [3]. The results reveal that social influence has a positive impact on the user adoption of ERP systems.

The third objective was to investigate the relationship between social influence and the level of end-user adoption of ERPS in SSCs. In simpler terms, the study aimed to test how external factors affect user behavior towards ERP systems in the SSCs, regardless of the system's attributes. Social influence is defined in the UTAUT model as the "extent to which an individual feels that significant others believe he or she should utilize the new system". It is considered a straightforward predictor of user acceptance of technology. The results of the study show that social influence has a positive impact on the user adoption of ERP systems. The positive relationship demonstrated in this research between

social influence and end-user adoption of ERP systems is comparable to that observed in Wagaw's [57] study. Ethiopian researchers did research to ascertain the primary parameters influencing user acceptability of homegrown ERP systems that take advantage of the realistic advancement of the UTAUT paradigm [57]. Several recent studies have observed similar trends in ERP implementation and adoption [73, 74].

The fourth objective of our research was to investigate how organizational support affects the level of end-user adoption of ERP systems. Organizational support refers to the extent to which a person feels that an organization and its technological infrastructure facilitate the use of a system. This study's findings demonstrate that organizational support has a positive impact on user adoption of ERP systems. This positive relationship between organizational support and user adoption of ERP systems is consistent with previous research [75, 76].

5.2. Implication

The present study has significant implications, both theoretically and practically. Theoretically, it contributes to the existing UTAUT model by presenting empirical evidence and a deeper understanding of the specific factors that influence user acceptance and adoption of ERPS. The study findings also contribute to the existing literature on user experience, organizational support, social influence, and performance expectancy in the context of ERPS in SSCs, where there is a lack of research. Overall, this study sheds light on the critical factors that affect the successful implementation of ERPS in SSCs and provides valuable insights for researchers and practitioners alike.

This study has a number of managerial contributions. Organizations should arrange inclusive training programs for end users, focusing on the technical aspects as well as the potential benefits of ERPs. Extensive training would enable them to understand better and in skill development. These would increase end users' performance expectancy and adoption of the system. Keeping in mind the effort expectancy, the organization should design the interface in a manner that would reduce the perceived effort required by the user. An intuitive and easily navigated system affects the efficiency of the system. Enhancing user-friendliness and simplifying skill acquisition can increase ERP system acceptance and integration in organizations.

The study was also found to have a positive effect of social influence and organizational support on the adoption of ERPs. Therefore, by promoting knowledge sharing through discussion and exchange of experiences, rewarding early adopters' organizations can create a supportive and collaborative environment. This would encourage positive peer experiences towards adoption. Organizations' commitment and resource allocation also play an important role in influencing users' perceptions of organizational support. It strengthens the end users' perception of organizational support for the adoption of the system. Hence, continuous evaluation of ERP performance, user satisfaction, and improvement is imperative for the overall effectiveness of the system. Through regular assessment, the incorporation of feedback from the end user can improve effort expectancy, performance expectancy, and user satisfaction. This approach helps users feel empowered to effectively utilize ERP systems.

6. Conclusion

Implementing an Enterprise Resource Planning system in a Shared Service Center can be a strategic move for organizations looking to streamline operations. This study analyzed the adoption of ERP systems by end-users in shared service centers in Malaysia, using the UTAUT model. The results showed that several factors, including performance expectancy, effort expectancy, social influence, and organizational support, have a significant impact on the acceptance of ERP systems by end-users in this context. These findings have important implications for organizations seeking to optimize their ERP system implementation. Organizations can strategically coordinate their efforts to ensure a more seamless and successful ERP system integration by paying attention to these implications. The study suggests that organizations can optimize their ERPS implementation by aligning efforts, addressing performance expectations, refining user interfaces, providing comprehensive training, and leveraging social influence. It also emphasizes the importance of robust technological infrastructure, adequate resources, and a supportive culture. The implications of these insights can guide organizations in Malaysia's shared service centers to optimize their ERP system implementation, enhancing operational efficiency and business performance.

However, this study has some limitations that can direct future avenues for research. The study is conducted from the end users' perspective. The inclusion of system developers can provide additional insights into the issue. Hence, the present study followed a quantitative approach; future research based on thematic analysis would generate more insights and a rich data set for understanding and explaining the complex behavior in the adoption of the ERPS.

7. Declarations

7.1. Author Contributions

Conceptualization, A.S. and N.K.; methodology, A.S. and N.K.; software, A.S.; validation, A.S., M.A., and N.K.; formal analysis, A.S. and A.Si.; investigation, M.A.; resources, A.S. and N.K.; data curation, M.A.; writing—original draft preparation, M.A., A.Si., and M.A.; writing—review and editing, A.S., A.Si., and M.A.; visualization, A.S.; supervision, A.S.; project administration, A.S. and N.K. All authors have read and agreed to the published version of the manuscript.

7.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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The authors received no financial support for the research, authorship, and/or publication of this article.

7.4. Institutional Review Board Statement

Not applicable.

7.5. Informed Consent Statement

Informed consent was obtained from all subjects involved.

7.6. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix I

Table A1. Statistics on the duration of Service and ERP usage

Particulars	Frequency	Percent
Duration of Service		
Less than 1 yr	24	6.1
1-5 yrs	112	28.6
6-10 yrs	64	16.3
11-15 yrs	56	14.3
16-20 yrs	24	6.1
20 yrs ⁺	112	28.6
Types of ERP used		
SAP	240	61.2
Oracle	72	18.4
Microsoft Dynamics	24	6.1
In-house developed system	40	10.2
Others	16	4.1
Duration of using ERPS		
Below 3 months	16	4.1
3-6 months	16	4.1
7-11 months	20	5.1
1 yr – 3 yrs	68	17.3
More than 3 yrs	272	69.4
Total	392	100

Table A2. Mean and Standard Deviation of End-user Acceptance of ERP Systems

	Constructs/ variable	Mean	Std. Deviation
End-user acceptance (DV)			
BUA1	Using ERPS is a pleasant experience	3.86	0.686
BUA2	I spend a lot of time on ERPS	3.74	0.800
BUA3	I will use ERPS in my daily life	3.71	0.822
BUA4	I intend to use ERPS frequently in the future	3.85	0.706
	Sub-total	3.790	0.7317
Performance expectancy (IV1)			
BPE1	I found ERP useful in my job	4.24	0.555
BPE2	Using ERPS enables me to accomplish tasks quickly	4.20	0.571
BPE3	Using ERPS increase my productivity	4.26	0.618
BPE4	Using ERPS makes it easier to do my job	4.29	0.548
	Sub-total	4.20	0.557
Effort Expectancy (IV2)			
BEE1	My interaction with ERPS is clear and understandable	3.89	0.681
BEE2	It is easy to become skilful at using ERPS	3.69	0.749
BEE3	I find ERPS easy to use	3.76	0.758
BEE4	Learning to operate ERPS was easy for me	3.77	0.712
	Sub-total	3.776	0.698
Social Influence (IV3)			
BSI1	People who influence my behavior think that I should use the ERPS	3.6	0.780
BSI2	People who are important to me think that I should use the ERPS	3.71	0.743
BSI3	People whose opinions I value prefer that I should use the ERPS	3.73	0.791
	Sub-total	3.683	0.751

<i>Organizational Support (IV4)</i>			
BOS1	I have the resources necessary to use the ERPS	4.07	0.675
BOS2	I have the knowledge necessary to use the ERPs	4.04	0.638
BOS3	The training provided by my organization is complete	3.77	0.807
BOS4	My level of understanding was substantially improved after going through the training program.	4.02	0.686
BOS5	The training gave me confidence in the system	3.96	0.670
Sub-total		3.97	0.668