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# What factors affect the adoption of cloud-based ERP in companies' operations in Malaysia?

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## *ABSTRACT*

The objective of this study is to ascertain the determinants that prompt organizations to embrace the cloud-based enterprise research planning (ERP) system with the intention of diminishing closing time and enhancing user performance. In addition, it is necessary to construct a comprehensive model that encompasses the various elements that influence firms' decisions to use cloud-based Enterprise Resource Planning (ERP) systems. These considerations include the impact of the pandemic, performance expectations, facilitating conditions, effort expectations, behavioral intentions, and the adoption of software specifically designed for cloud-based ERP functionality. The present study employed a questionnaire survey as a means of data collection, specifically targeting employees of ERP organizations to obtain primary data. The present study employed the Unified Theory of Acceptance and Technology Use 2 (UTAUT2) as the theoretical framework to establish the variable, utilizing Structural Equation Modeling-Partial Least Squares (SEM-PLS). The authors have indicated that various aspects, including the pandemic effect, performance expectance, enabling situation, effort expectation, behavior intention, and software (specifically, cloud-based ERP), have been found to have a beneficial influence on cloud-based ERP. This research study provides novel management insights that enhance the existing body of knowledge on cloud-based enterprise resource planning (ERP) systems. Specifically, it examines the moderation model in the context of manufacturing enterprises located in Malaysia. There is ample opportunity to employ several theoretical frameworks, including the theory of consumer satisfaction. Still, the scope of this study did not encompass small and medium-sized enterprises (SMEs) or industries in general.

**Contribution/Originality:** This study's author develops an empirical model to investigate the relationship among cloud-based ERPs. This study offers new managerial contributions that add value to the cloud-based ERP literature by testing the moderation model in manufacturing firms in Malaysian countries.

## 1. INTRODUCTION

### *1.1. Issues of ERP and Motivation of the Study*

Enterprise resource planning (ERP) is one of the tools to manage the workload, business processes, and working environment (Garg & Garg, 2013; Jayeola, Sidek, Abd Rahman, Mahomed, & Jimin, 2020). The work

system and workload remain difficult to manage in an epidemic due to cloud-based ERP (Martin & Cheung, 2005; Razzaq & Mohammed, 2020). Many companies have shut down in the last few years due to managing workload and closing time (Salum & Rozan, 2016; Trkman, Mertens, Viaene, & Gemmel, 2015). ERP systems have been plagued by poor performance and failure to execute real-time problems in companies (Martin & Cheung, 2005; Salum & Rozan, 2016; Shehab, Sharp, Supramaniam, & Spedding, 2004). Companies must improve their workload management based on company demand to overcome the issues (Bawack & Kala Kamdjoug, 2023; Fernando Sentanin, César Almada Santos, & José Chiappetta Jabbour, 2008). Therefore, the adaptation of cloud-based ERP (cloud-based ERP) must be investigated in Malaysian companies.

This study analyzes crucial factors that affect enterprise research planning (ERP) in companies based on the unified theory of acceptance and technology use (Thottoli & Thomas, 2022). These are the pandemic effect, performance expectance, facilitating condition, effort expectancy, and behaviour intention (Mohamad Zain, Tajul Urus, Trinh, Amirul, & Tuan Mat, 2023; Ramírez-Correa, Grandón, Ramírez-Santana, Arenas-Gaitán, & Rondán-Cataluña, 2023; Roffia & Mola, 2022). Only a few studies have disclosed a few variables that examine users' adoption of ERP systems via qualitative research (Abdullahi, Mohamud, Ali, & Abi Hassan, 2023; Zain, Urus, Trinh, Amirul, & Mat, 2023). There have also been a few studies that found ERP system automation, particularly in the case of self-directed ERP users (Lee, Wong, & Hoo, 2017). Another study found strategic ERP systems using an agile methodology (Ahn & Ahn, 2020).

Kayali, Safie, and Mukhtar (2019) disclose that performance expectancy, pandemic effect, and facility condition are the primary factors affecting the adoption of ERP software. Most studies discuss performance, social influence, and user behaviour (Salimon et al., 2023). However, few studies have found that performance expectancy, facilitating condition, effort expectancy, and behaviour intention affect ERP adoption and its companies during the pandemic (Mukred, Yusof, Alotaibi, Mokhtar, & Fauzi, 2019).

It is widely used to understand better how UTAUT2 can increase efficiency and effectiveness in terms of performance (Mukred et al., 2019; Salimon et al., 2023). UTAUT2 was used to examine the impact of behavioural intention to use conditionally modern technology on the expectations of performance, effort, social influence, facilitation conditions, and hedonic motivation (Limna, Siripipatthanakul, Siripipattanakul, Woodeson, & Auttawechasakoon, 2022). It is important to note that these studies consider specific factors that affect the implementation of a cloud-based ERP system. These factors are the pandemic effect, performance expectancy, facilitating conditions, effort expectancy, behaviour intention, and adoption of cloud-based ERP. Therefore, this study used UTAUT 2 as the underpinning theory.

## 2. LITERATURE REVIEW

### *2.1. Adoption of Software (Cloud-based ERP) (AOS)*

The adoption of software (AOS) is defined as cloud-based ERP software for the operation of a company. It also signifies switching from an outdated system (or one that doesn't fit our demands) to a more modern one (a system that does meet your needs) (Rashid et al., 2018). The process through which new users become accustomed to a product or service and continue using it is known as ERP adoption (Sardjono, Sudirwan, Priatna, & Putra, 2021). Accepting, integrating, and utilizing new technology in companies is called ERP adoption (Anastasiou, 2016). The adoption of ERP is an advanced enterprise planning software that enhances the company's production and closing times.

### *2.2. Hypothesis Development*

This research defines the pandemic effect as the epidemic impact of using Cloud-Based ERP in companies (Staniuk, Staniuk, Chamier-Gliszczynski, Jacyna, & Kłodawski, 2022). It shares the most consequences for companies during the pandemic work paradigm (Gutnu, 2022). A study shows that the pandemic caused a huge

change in the supply chain, affecting the company's operation and final closing (Lutfi, Al-Khasawneh, Almaiah, Alsyouf, & Alrawad, 2022). The pandemic creates hardship in the processes and management of companies (Santoso, Siagian, Tarigan, & Jie, 2022). Likewise, the pandemic has caused crucial changes in the workload and office monitoring in ERP companies (Yan et al., 2022). In addition, the pandemic effect significantly changes as it causes huge trouble in the supply chain (Pinciotti, Bulkes, Horvath, & Riemann, 2022). Besides, the epidemic causes dramatic changes in society and office management that cause huge losses in profit and operation (Dian, Trisna, & Huda, 2022). It enhances the behaviour intention of individual office staff and higher management (Berglund et al., 2022). Other researchers have described that the pandemic creates user intention, enhancing cloud-based ERP software to manage the office (Jalal, Chamberlain, Robbins, & Sahakian, 2022). Therefore, this research constructs the following hypothesis:

*$H_1$: Pandemic effect positively correlates with the behaviour intention to adopt cloud-based ERP.*

This research defined performance expectancy as measuring individual demand for cloud-based ERP performance expectations in companies (Cho, Cheon, Jun, & Lee, 2022). Performance demand fulfilments satisfy a particular behaviour in their companies and impact company performance (Dell'Acqua, Moretta, Dal Bò, Benvenuti, & Palomba, 2022). Performance expectancy (PE) significantly affects using tools in their daily work (Vismara, Varinelli, Pellegrini, Enara, & Fineberg, 2022). It improves individuals' ability to perform their job duties (Alshare & Lane, 2011). In addition, it suggestively affects the company's operation and supply chain effectiveness through individual actions (Alshare, El-Masri, & Lane, 2015). As a result, the performance expectancy impacts the adoption of cloud-based ERP software based on user behaviour intention (Thottoli & Thomas, 2022). Likewise, it heightens one's desire to engage in the behaviour (Roffia & Mola, 2022). In addition, performance expectancy implies the inline fact of the user intention, thus improving cloud-based ERP software use (Limna et al., 2022). Therefore, this research constructs the following hypothesis:

*$H_2$: Performance expectancy is positively related to the behaviour intention in adopting cloud-based ERP.*

This research-facilitating condition defines the facilities for employees to use cloud-based ERP to operate the company (Chauhan & Jaiswal, 2016). Besides that, it provides companies with the infrastructure to use cloud-based ERP (Grigorescu & Ion, 2022). A study described an individual's behaviour intention in a system's underlying organizational and technological infrastructure (Roffia & Mola, 2022). A part of another study discloses that the facilitating condition is the significant variable that influences the use of cloud-based ERP (Thottoli & Thomas, 2022). Furthermore, it substantially impacts the organization's overall performance (Almajali et al., 2022). It is explained that the facilitating condition affects the adoption of cloud-based ERP software, which depends on users' intention to engage in certain behaviours (Song, Oh, & Lee, 2022). In addition, facilitating conditions boost the employer's conduct using the facilities that have been opened and given to them (Balke, Rolke, & Seibold, 2022). Though it is important to mention that facilitating conditions create user intention and, as a result, improve cloud-based ERP adoption to operate the companies (Liang, Li, Zhang, & Luo, 2022). Therefore, this research constructs the following hypothesis:

*$H_3$: Facilitating conditions have a significant impact on the behaviour intention in the adoption of cloud-based ERP.*

This study defines effort expectancy as the necessary effort that Cloud-based ERP expects. It drives the action of technology tools towards using cloud-based ERP (Uddin, Alam, Al Mamun, & Akter, 2020). A study signifies effort expectancy, which evaluates how information technology is accessible when used (Roffia & Mola, 2022). According to Limna et al. (2022), effort expectancy acknowledges the ease of using an information system, which is enhanced by the individual user's intention (Limna et al., 2022). Also, it moderates a person's behavioural sense, which drives the adoption of cloud-based ERP (Thottoli & Thomas, 2022). Also noteworthy is that it significantly impacts the organization's overall functioning (Romero-Ferreiro, Rodríguez-Gómez, Pozo, & Moreno, 2022). As a result, effort expectancy affects the adoption of cloud-based ERP, which depends on users' intention to engage in specific behaviours when using the software system (Limna et al., 2022). Although the company's success depends

on the employee's efforts towards their work (Chauhan & Jaiswal, 2016). Researchers disclose that users' intentions improve cloud-based ERP usability and effort expectancy (Pham & Dau, 2022). As a result of this investigation, the following hypothesis was developed:

*$H_5$: Effort expectancy effect positively correlates with the behaviour intention in adopting cloud-based ERP.*

This study defines individual behaviour attention and wishes to use cloud-based ERP in their companies (Al Mamun, 2022). In this context, intention and acceptance are integrating and using new technology (Sternad Zabukovšek, Tominc, Deželak, Nalbandyan, & Bobek, 2022). A mediating influence on a person's behavioural intention has been found due to this investigation (Jo, 2022). Furthermore, it is worth noting that it significantly impacts the organization's operation (Zheng & Khalid, 2022). As a result, the adoption of software to engage in specific behaviours when using the cloud-based ERP to operate the organization (Idilbi & Abu-Shanab, 2022). This, in turn, affects the adoption of cloud-based ERP to run the organization (Mohanty, Sekhar, & Shahaida, 2022). It is believed that the anticipation of success boosts one's motivation to adopt cloud-based ERP, increasing one's motivation to engage in the behaviour even more (Nguyen et al., 2022). In a few actions by an employer, it is easy to assume the adoption ability to improve the cloud-based ERP to operate the organization (Hadi et al., 2022).

This refers to the motivating elements that influence particular conduct to use the intention of a cloud-based ERP (Sternad Zabukovšek, Bobek, Zabukovšek, Kalinić, & Tominc, 2022). The stronger the desire to perform the behaviour, the more probable it will be served (Rivera, Shapoval, Semrad, & Medeiros, 2022). This is a person's belief regarding whether or not many people agree or disagree with their actions (Zuo et al., 2023). This study has a mediating influence on a person's behavioural intention (Al Mamun, 2022). Furthermore, it is noteworthy that it considerably impacts the organisation's overall operation (Mukred et al., 2023). Because of this, the facilities affect the adoption of cloud-based ERP software, which depends on users' intent to engage in specific behaviours when using the software (Widodo, Putra, Nadeak, Novitasari, & Asbari, 2022). The expectations of the job holder and their behaviour even further reflect intention and adoption in the future (Huang & Yu, 2022). This is due to the behaviour-intention effect, which has only been seen in the literature (Limna et al., 2022). The following hypothesis has been established because of this inquiry:

*$H_6$: Adoption of software positively correlates with the behaviour intention to adopt cloud-based ERP.*

Finally, this study constructed the research framework.

Figure 1 illustrates the research framework.

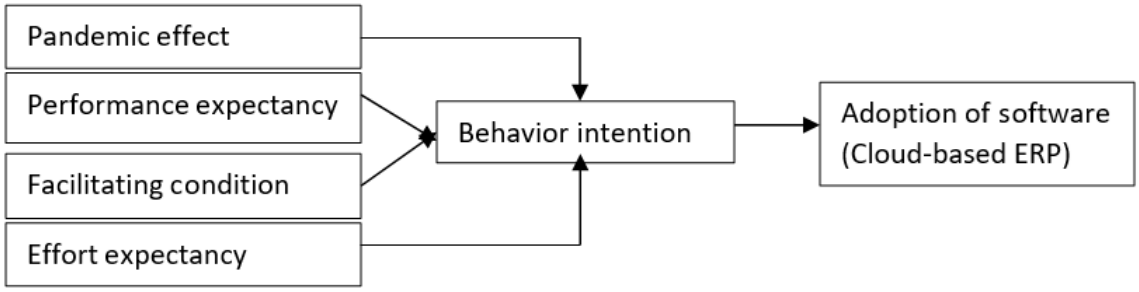


**Figure 1.** Research framework.

## 3. METHODOLOGY

### 3.1. Sample

The study relies on Krejcie and Morgan (1970) sample size to determine an appropriate number of participants (Krejcie & Morgan, 1970). The population is 1700; therefore, one hundred ninety-seven people participated in this study, surpassing the minimum recommended sample size. The study area conducted the questionnaire survey between January 15th and March 23rd, 2023. This study also included ERP-based company employees as participants.

### *3.2. Data Collection*

We made an online Google Doc available to the respondents and explained the purpose of the data collection. This study distributed 958 questionnaires Appendix A, of which 327 came from ERP-based businesses, representing a 34% response rate.

### *3.3. Constructs and Measurement*

Each construct in this study will be applied based on factors discovered in earlier research. The constructs used in this study were adapted from the UTAUT model by Venkatesh, Thong, and Xu (2012). According to a seven-point Likert scale from strongly disagreeing to strongly agreeing on various topics, participants were asked to rate their level of agreement. The data for this study is collected through a questionnaire-survey approach to assess the research hypothesis. As a result, questionnaires were used to obtain primary data from the employees of the ERP companies participating in this study. Finally, the SEM-PLS statistical instrument is used in this investigation as a statistical instrument. Previous research was consulted to create the measurement items (Husin, Kamarudin, & Rizal, 2021; Miraz, Hasan, Masum, Alam, & Sarkar, 2020; Nee, Yacob, & Senadjki, 2020; Sham, Rasi, Abdamia, Mohamed, & Bibi, 2017; Tieman & Van Nistelrooy, 2014). Variables were assessed using the Likert scale with seven points (1 = strongly disagree), while meditating and dependent variables were evaluated using the Likert scale with seven points (7 = strongly agree). The variables were assessed using the Likert scale with seven points (e.g., 1, 2, 3, 4, 5, 6, and 7 = strongly agree) and the Likert scale with seven points (e.g., 1, 2, 3, 4, 5, 5, 6, and 7 = strongly agree).

Scope: This research focuses on the east-west coast of Malaysia (Kualalumpur, Johor, Penang). Because most ERP-based enterprises are concentrated in Kuala Lumpur, Johor, and Penang, east Malaysia was selected as the research location for this study.

## 4. ANALYSIS AND RESULTS

### *4.1. Demographic Profile Analysis*

Table 1 demonstrates the age at which the study revealed that 36-45 = 98 and 26-35 = 53. It shows that 26-45 mainly respond to the study survey questionnaire. Besides that, 18-25 = 9 is significantly less, but 46 and above = 37 shows that wise and older people still want to know more about ERP. Additionally, it demonstrates academic degrees (Masters-99 and Bachelor-83, Diploma-7 and PhD-8).

On the other hand, marital status is Married-112 and Single-84, but the others 1 are significantly less. According to the marriage status, the most common respondents from Malaysian ERP organizations are married or single. Also, it represents the total number of males as 98, females as 95, and the other number as 4.

**Table 1.** The total number of respondents' Age, academic degree, and marital status.

| Age | No | Academic degree | No | Marital status | No | Gender | No |
|---|---|---|---|---|---|---|---|
| 36-45 | 98 | Masters | 99 | Married | 112 | Male | 98 |
| 26-35 | 53 | Bachelor | 83 | Single | 84 | Female | 95 |
| 46 & above | 37 | Diploma | 7 | Others | 1 | Others | 4 |
| 18-25 | 9 | Ph.D. | 8 | N/A | N/A | N/A | N/A |

### *4.2. Measurement Model Assessment*

Reliability testing is a method of evaluating the predictor's dependability he predictor's dependability (Jimada-Ojuolape & Teh, 2022). The reliability of an indicator is commonly referred to as "outer loading" in Table 2. The overall load can be anywhere from 0 to 1, depending on the situation. It is widely accepted that any value less than 0.5 should be eliminated, and any object with a loading value greater than 0.9 should be retained (Freitag & Sperandio, 2022). The proposed internal quality measures were Cronbach's alpha and composite reliability (Jimada-

Ojuolape & Teh, 2022). Composite reliability is a better way to determine internal accuracy between 0.6 and 0.9, with 0.7 regarded as a reasonable estimate of composite reliability.

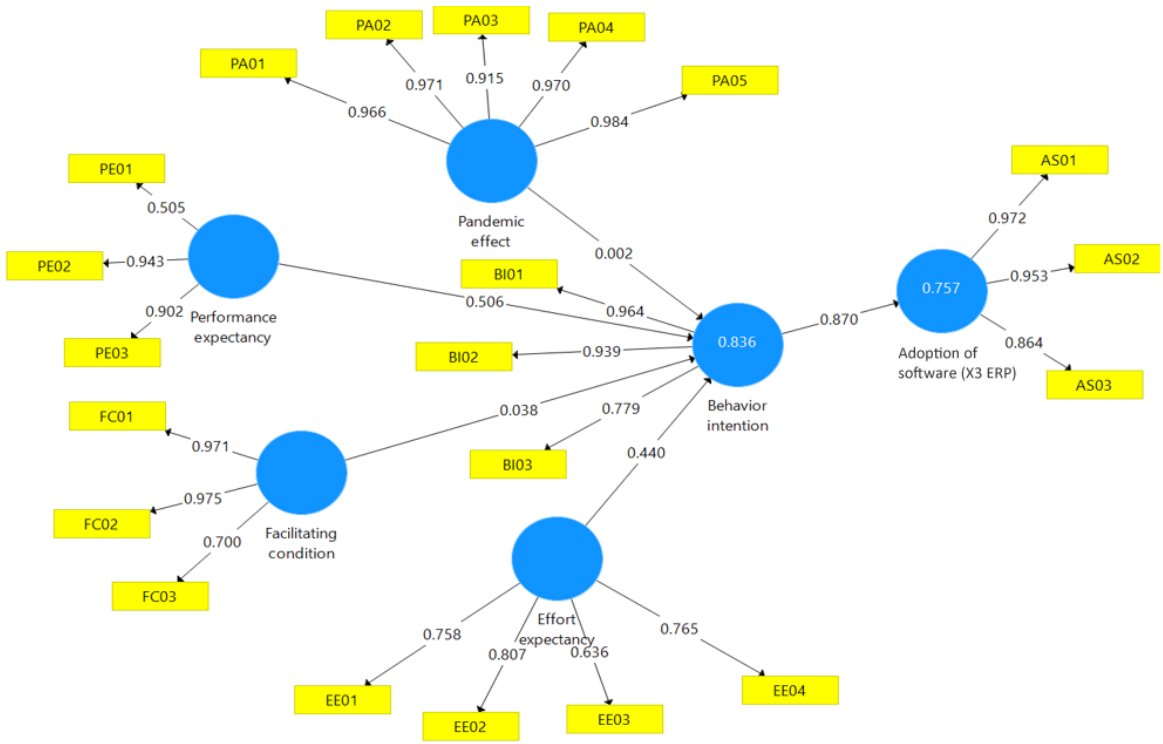


**Figure 2.** Measurement model.

Figure 2 displays the study's measuring model, focusing on Cronbach's alpha and composite reliability. It also demonstrates that Cronbach's alpha and composite reliability values are acceptable, indicating that they are greater than the 0.7 limits imposed in Table 2.

**Table 2.** Composite reliability and AVE.

| Variable/ Construct | Composite reliability | Average variance extracted (AVE) |
|---|---|---|
| Adoption of software (AOS) | 0.951 | 0.866 |
| Behaviour intention (BI) | 0.925 | 0.805 |
| Effort expectancy (EE) | 0.831 | 0.554 |
| Facilitating condition (FC) | 0.919 | 0.795 |
| Pandemic effect (PAE) | 0.984 | 0.924 |
| Performance expectancy (PE) | 0.841 | 0.653 |

Table 3 shows the individual item reliability through outer loading. In this table, all the items are more than 0.7, which means the particular item is reliable (Jimada-Ojuolape & Teh, 2022). This study showed every item's reliability through composite reliability (Freitag & Sperandio, 2022). For each item, the composite reliability value is higher, at 0.7.

Discrimination can only be justified if a significant gap exists between two opposing viewpoints (Al Shbail, Alshurafat, Ananzeh, & Al-Msiedeen, 2022).

There are two measures of discriminating validity: the Fornell-Larcker Criterion and the Heterotrait-Monotrait (HTMT) (Rasoolimanesh, 2022). Also, the square root of AVE's (average variance extracted) should be above diagonally, just like the statistics for all other variables (Chin, 1998; Johana, 2020).

**Table 3**. Individual item reliability (Outer loading).

| Variable/ Construct | Items | Cronbach's alpha |
|---|---|---|
| Adoption of software (AOS) | AOS1 | 0.972 |
| | AOS2 | 0.953 |
| | AOS3 | 0.864 |
| Behaviour intention (BI) | BI1 | 0.964 |
| | BI2 | 0.939 |
| | BI3 | 0.779 |
| Effort expectancy (EE) | EE1 | 0.758 |
| | EE2 | 0.807 |
| | EE3 | 0.636 |
| | EE4 | 0.765 |
| Facilitating condition (FC) | FC1 | 0.971 |
| | FC2 | 0.975 |
| | FC3 | 0.700 |
| Pandemic effect (PAE) | PAE1 | 0.966 |
| | PAE2 | 0.971 |
| | PAE3 | 0.915 |
| | PAE4 | 0.970 |
| | PAE5 | 0.984 |
| Performance expectancy (PE) | PE1 | 0.505 |
| | PE2 | 0.943 |
| | PE3 | 0.902 |

**Table 4.** Fornell-Larcker criterion.

| Variable/ Construct | AOS | BI | EE | FC | PAE | PE |
|---|---|---|---|---|---|---|
| Adoption of software (AOS) | 0.931 | | | | | |
| Behavior intention (BI) | 0.870 | 0.897 | | | | |
| Effort expectancy (EE) | 0.765 | 0.867 | 0.744 | | | |
| Facilitating condition (FC) | 0.150 | 0.202 | 0.135 | 0.891 | | |
| Pandemic effect (PAE) | 0.481 | 0.500 | 0.422 | 0.292 | 0.961 | |
| Performance expectancy (PE) | 0.866 | 0.881 | 0.832 | 0.204 | 0.594 | 0.808 |

Table 4 describes the Fornell-Larket creation to demonstrate the discriminant validity. It shows that the value is diagonal, and the top value is higher than the below value. Therefore, this study does not have any discriminant value.

### *4.3. Structural Model Assessment*

Partial least squares structural equation modelling (PLS-SEM) links the structural model and the latent structures, determining their relationship. They define the significance of the relationship regardless of whether t and p values are required.

The t-values are above 1.64; p-values of 0.05 or lower are accepted or supported (Ramayah, Cheah, Chuah, Ting, & Memon, 2018).

This study is an intermediary between customer satisfaction as a medium between the pandemic effect, performance expectancy, facilitating conditions, effort expectancy, behaviour intention, and software adoption. The study's mediation findings are presented in Figure 3.

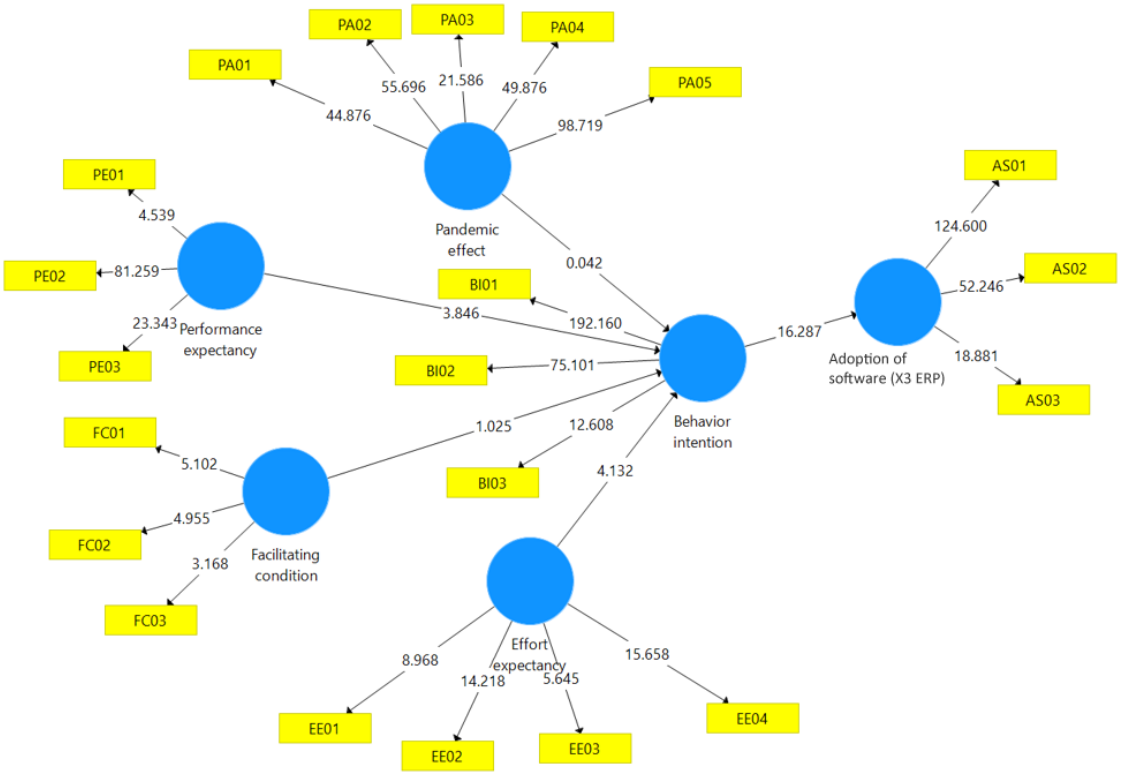


**Figure 3.** Structure of the model.

Figure 3 demonstrates the structure model of the study. It describes the path model between the mediator and the mediation effect. The path model is described in Table 5.

Based on Table 5, it was found that attitude did not affect PAE or BI. As a result, we cannot accept the hypothesis (H1). A non-significant (= 0.506, p-value 0.062) relationship between performance expectancy and customer satisfaction is found in H2 as well. Thus, H3, H4, and H5 were all true. "There was a significant and positive relationship between behavioural intention and FC (= 0.038, p 0.000) and EE (= 0.440, p-value p=0.000) as well as BI (= 0.870, p = 0.000). Table 6 presents the assessments of the model and findings.

**Table 5.** Path coefficients and hypothesis testing.

| Hypothesis | Hypothesis | Original sample (β value) | T-value | P values |
|---|---|---|---|---|
| H1 | Pandemic effect->Behavior intention | 0.002 | 0.042 | 0.966 |
| H2 | Performance expectancy-> Behavior intention | 0.506 | 3.921 | 0.062 |
| H3 | Facilitating condition-> Behavior intention | 0.038 | 1.072 | 0.000 |
| H4 | Effort expectancy-> Behavior intention | 0.440 | 4.276 | 0.000 |
| H5 | Behavior intention ->Adoption of software | 0.870 | 14.201 | 0.000 |

**Table 6.** Assessments of the model and findings.

| Hypothesis | Hypothesis | P values |
|---|---|---|
| H1 | Pandemic effect->Behavior intention | Not supported |
| H2 | Performance expectancy-> Behavior intention | Not supported |
| H3 | Facilitating condition-> Behavior intention | Supported |
| H4 | Effort expectancy-> Behavior intention | Supported |
| H5 | Behavior intention ->Adoption of software | Supported |

## 5. DISCUSSION

The pandemic effect failed to explain the variance of behavior intention (BI) directly; thus, hypothesis H1 was not supported. The role of the pandemic effect (PAE) in BI is not meaningful for adopting software (AOS) in

Malaysia's digital market. This outcome was consistent with the results (Povero, Turco, & Dal Negro, 2022). PAE can provide a different understanding and usability of how users behave and whether they have a positive mindset during the pandemic (Staniuk et al., 2022). Besides that, studies support this statement, which shows the non-significant effect of behaviour intention (Staniuk et al., 2022). Pandemics always affect everyday life, but cloud-based software does not because it's a new paradigm to help the company worker work from home (Sarkar, Pandya, Dave, Jha, & Dhaneshwar, 2022). Finally, this stay revealed that PAE does not intend to use cloud-based ERP.

Performance expectancy (PE) was found to impact behaviour intention negatively (BI), which supports H2. Also, this study found an inverse association between PE and BI. Some studies have shown a positive relationship between PE and BI, whereas the result of the present study shows a negative relationship (Hassan, 2018). This opposite outcome might be due to concern for the performance of an individual during a pandemic (Shan, Li, Yao, Shi, & Ren, 2014). Such performance expectancy concerns may make users less motivated to make effective and efficient behaviour intentions.

The result indicates that facilitating conditions substantially contribute to the adoption of cloud-based ERP software in Malaysia (H3). This outcome was like the findings of previous studies (Shan et al., 2014). Facilitating conditions (FC) predict ERP users in BI (Anastasiou, 2016). FC is considered a source of facilities that the company works with to use the cloud-based ERP (Mwilu, 2021). It enhances the infrastructure for users to use cloud-based ERP and increases BI. Therefore, it has generally been assumed that the company's facilities improve the behaviour and intention of company staff in cloud-based ERP use.

A positive connection is found between effort expectancy (EE) and behaviour intention (BI) (H4). The results of previous studies support this finding. EE is an influential variable in BI, and BI uses cloud-based ERP (Liao, Lezoche, Panetto, & Boudjlida, 2016). Similarly, EE impacts BI and creates a more excellent sensation of BI (Douthit, Martin, & McAllister, 2022). The essentials of performing anything exclusively, boosting conduct intention, are called an effect. This is consistent with the results of previous studies. Therefore, we conclude that effort expectancy significantly influences user behaviour intention.

A significant relationship was observed between BI and AOS (H5). In other words, BI is an essential predictor of AOS in Malaysia. This study was also conducted on users' intentions to adopt technology (Christiansen, Haddara, & Langseth, 2022). This implies that BI is essential for strengthening AOS in developed and developing countries (Haddara, Gøthesen, & Langseth, 2022). The most recent study on BI also supported this finding (Tumbajoy & Muñoz-Añasco, 2022). It was observed that BI affects AOS (Vos & Boonstra, 2022). This result suggests that a higher level of BI encourages AOS to adopt X-ERP (Zouaq, 2020). It also shows that visible BI enhances worker adoption (Tumbajoy & Muñoz-Añasco, 2022). Finally, this study concludes that behaviour intention extensively affect AOS.

## 6. CONCLUSION

This study focused on ERP firms in Malaysia and looked at the variables influencing the link between behavioural intention and software adoption. The results indicate that modern Malaysian companies should improve their behaviour intentions because ERP is new to the industry. The following conclusions were drawn from the results:

1. FC and EE significantly influence behaviour intention in Malaysian ERP-based industries. However, the pandemic effect and performance expectancy cannot directly affect software adoption in ERP industries.
2. Behaviour intention was also shown to impact the adoption of software relationships in the market directly studied. A high level of behavioural intention indicates a greater likelihood of software adoption.

The study also found that behaviour intention indirectly influenced software adoption (cloud-based ERP) in Malaysia's ERP industries. It also demonstrated the interrelationship between the predictor, the mediator, and the

dependent variables. The mediation effect of predictor variables (i.e., FC, EE, PE, and PAE) and software adoption on behaviour intention was also identified.

### *6.1. Practical Implications*

Several perspectives were considered when evaluating a new software adoption model for the first time. This is the first study in the ERP field to use six higher-order constructs in a single study.

The ERP-based industry will benefit significantly from the findings of this study. With these results, we can gain a better understanding of the situation. Malaysia's Ministry of Finance and Industry should also consider implementing proper ERP industry measures.

### *6.2. Limitations*

Like this, there is space to use different theories, such as customer satisfaction theory. Besides, that did not examine the SME and general industries. Further, this study used only cross-sectional data. Future research should use longitudinal data to help comprehend how the relationship evolves.

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**Institutional Review Board Statement:** The Ethical Committee of the Curtin University Malaysia, Malaysia has granted approval for this study.
**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
**Competing Interests:** The authors declare that they have no competing interests.
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**Appendix A.** The sources of variable and items.

| Variable | Item | Adapted from |
|---|---|---|
| Pandemic effect | Does the pandemic influence cloud-based ERP use? | Miraz, Hasan, Rekabder, and Akhter (2022) |
| | Pandemic effect derives the company from using the cloud-based ERP. | |
| | Pandemic demand the use of cloud-based ERP. | |
| | Covid-19 pandemic guides us to go for ERP use. | |
| | Covid-19 pandemic open a new paradigm for office management. | |
| Performance expectancy | Using this cloud-based ERP software increased my productivity. | Venkatesh et al. (2012) |
| | Cloud-based ERP enables me to accomplish tasks more quickly. | |
| | Cloud-based ERP increases the quality of my output. | |
| Facilitating condition | I have the resources necessary to use cloud-based ERP. | Venkatesh et al. (2012) |
| | I know that it is necessary to use cloud-based ERP. | |
| | My company has facilities for cloud-based ERP. | |
| Effort expectancy | My interaction with the cloud-based ERP helped me to accomplish the task. | |
| | It would be easy for me to become skilful in using the cloud-based ERP. | |
| | I find the cloud-based ERP easy to use | |
| | Learning to use cloud-based ERP is easy for me. | |
| Behavior intention | I intend to use the cloud-based ERP in the next two months | Venkatesh et al. (2012) |
| | I predict I will use the internet in the near future. | |
| | I plan to use the cloud-based ERP in the next few months. | |
| Adoption of software | I think the cloud-based ERP is easy to adopt | Chen et al. (2022) |
| | The cloud-based ERP easy to understand | |
| | The cloud-based ERP has an inclusive guideline. | |