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**Bridging the gap: the mediating effect of cloud-based ERP adoption intention on entrepreneurial orientation and marketing performance in South Indian SMEs**

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## Bridging the gap: the mediating effect of cloud-based ERP adoption intention on entrepreneurial orientation and marketing performance in South Indian SMEs

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**Abstract:** This study investigates the impact of entrepreneurial orientation and cloud-based ERP adoption intention on marketing performance. Based on the previous literature, the conceptual model was developed. The study uses the diffusion innovation theory. The data collection was from owners and managers in South Indian SMEs. A non-probability purposive sampling technique was used in this study. Data analysis was performed through Smart PLS 4.0 software. The hypotheses were tested through structural equation modelling. The results show that cloud-based ERP adoption intention significantly mediates between entrepreneurial orientation and marketing performance. This study contributes to a further understanding of cloud-based ERP adoption intention and entrepreneurial orientation strategies in South Indian SMEs, especially the marketing performance for firm growth and its significance to firms in an industry ecosystem. This research highlights the importance of cloud-based ERP adoption intention, and SME owners or managers should develop their skills toward achieving marketing performance in South Indian SMEs. The limitation and implications are discussed, and recommendations for future research are also presented.

**Keywords:** cloud-based ERP adoption intention; entrepreneurial orientation; marketing performance; structural equation modelling; SEM; South Indian SMEs.

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## 1 Introduction

Small and medium enterprises (SMEs) are the backbone of the Indian economy, contributing over 40% of the country's GDP, and this sector has been increasing in recent years. Cloud-based ERP is increasingly becoming popular among SMEs in India (Alsharari et al., 2020; Kuo et al., 2023). It is seen as a viable option for them to increase efficiency, reduce costs, and automate processes. With the proliferation of affordable cloud-based ERP solutions, SMEs are increasingly turning to them as the preferred way to manage their business operations. This trend is being driven by the cost savings, scalability, flexibility, and speed of implementation that cloud-based ERP solutions offer (Gupta et al., 2018, 2020; Razzaq et al., 2021). Although the potential benefits of cloud-based ERP adoption are significant, SMEs are typically cautious when embracing new technologies.

Cloud-based enterprise resource planning (ERP) systems have gained significant traction in recent years as a means to enhance operational efficiency and effectiveness in organisations. SMEs in South India, in particular, have shown a growing interest in adopting cloud-based ERP solutions due to their potential to bridge the gap between limited resources and sustainable growth. However, the relationship between cloud-based ERP adoption intention, entrepreneurial orientation (EO), and marketing performance (MP) in this context remains largely unexplored. In this study, we aim to fill this research gap by investigating the mediating effect of cloud-based ERP adoption intention on the relationship between EO and MP in South Indian SMEs. EO, characterised by innovative thinking, risk-taking propensity, and proactiveness, is known to fuel the performance and growth of SMEs. At the same time, cloud-based ERP systems offer SMEs access to advanced technology tools, scalability, and cost-effectiveness. Cloud-based ERP systems are very popular among SMES (not only in India) but at present, the ERP systems are usually combined with other systems such as Business Intelligence systems and customer relationship management (CRM) systems (Ruivo et al., 2014).

In strategic management and entrepreneurship research studies, EO has remained a significant phenomenon until relatively recently (Jalali, 2023; Jing et al., 2023; Paul et al., 2023). Adopting cloud-based ERP systems is essential for companies looking to increase operational efficiency and reduce costs. As such, the literature has had an increasing focus on the role that EO plays in this adoption (Khayer et al., 2021; Kuo

et al., 2023; Rawashdeh and Rawashdeh, 2023; Wadood et al., 2022). Several studies have shown that companies with higher levels of EO are more likely to adopt cloud-based ERP systems than those with lower EO.

Research in EO and MP is relatively well established. However, there is limited research on the impact of cloud-based ERP adoption on EO and MP. Specifically, a gap exists in understanding how cloud-based ERP adoption influences the relationship between EO and MP. Additionally, there is a need to explore how cloud-based ERP adoption may enable or constrain the ability of firms to adapt their EO and MP strategies in response to changing market conditions. Furthermore, this research can contribute to the existing literature by providing empirical evidence on the role of cloud-based ERP adoption intention in mediating the relationship between EO and MP. This study recognises the unique context of South Indian SMEs, where limited resources and increasing market competition necessitate the adoption of innovative and efficient technologies.

The following objectives are specified in this study:

- 1 to identify the relationship between EO and MP
- 2 to examine the impact of cloud-based ERP adoption on MP
- 3 to investigate the mediating effect of cloud-based ERP adoption intention on the relationship between EO and MP
- 4 to identify the benefits and challenges associated with the adoption of cloud-based ERP.

Drawing on the theoretical concept of diffusion of innovation theory, this article presents the three contributions to the literature. The first role of cloud-based ERP adoption in South Indian SMES with using of EO strategies to achieve MP. Second, the study empirically examines the determinants of cloud-based ERP adoption through the conceptual framework and which factor influences more than other factors. Third, the study adds existing literature on MP and firm performance in South Indian SMEs. The findings suggest that EO and cloud-based ERP adoption intention significantly increase MP in South Indian SMEs.

The findings of this study are expected to shed light on the importance of cloud-based ERP adoption intention in facilitating the translation of EO into improved MP. Practically, the study's findings will help SME managers and stakeholders make informed decisions regarding the adoption of cloud-based ERP systems to enhance marketing effectiveness. Moreover, this study will contribute to the theoretical understanding of the relationships between EO, cloud-based ERP adoption intention, and MP in SMEs, thus filling a crucial research gap in the existing literature.

This paper consists of five major sections. The first section provides the introduction and research objectives of the study. The second section covers a literature review and theoretical underpinnings. The third section outlines the research methodology part. The fourth section reports the data analysis. Further, the fifth section provides the results and discussion. Finally, the last section covers theoretical, managerial implications, future direction, and conclusion.

## 2 Theoretical underpinnings

### 2.1 Diffusion of innovation theory

The diffusion of innovation theory suggests that new ideas, products, or services spread gradually throughout a population over time (Bintara et al., 2023; Durac et al., 2023; Novitasari and Agustia, 2023). This theory is used by marketers to understand how new products are adopted in a population and to analyse the impact of the product across different segments of the population. The diffusion of innovation theory suggests that the process of adoption is influenced by factors such as the adopters' innovativeness, the population's size, the social networks between adopters, and the communication channels used to spread the new idea. The theory is based on the idea that individuals within a population are more likely to adopt an innovation if they perceive it as beneficial or desirable (Skafi et al., 2020). Furthermore, the theory suggests that the adoption of an innovation will spread more quickly if the population is large and if it is easier for individuals to communicate with one another.

## 3 Literature review and hypothesis development

### 3.1 Cloud-based ERP adoption intension

Cloud-based ERP systems have become increasingly popular for businesses of all sizes as they offer a variety of features that traditional on-premise systems can't. Cloud-based ERP systems offer improved scalability, enhanced security, and better reliability and provide greater accessibility and flexibility (Pastuszak, 2024; Pastuszak et al., 2013). By adopting a cloud-based ERP system, businesses can achieve improved efficiency and visibility of business operations while reducing costs and increasing agility. As enterprises consider adopting a cloud-based ERP solution, it is crucial to understand such a system's benefits and potential drawbacks (Pawlowski et al., 2019; Salamzadeh and Salamzadeh, 2018). Some of the benefits include improved scalability, enhanced security, and better reliability. With a cloud-based ERP system, businesses can quickly scale up or down as needed and ensure their data is secure.

Additionally, cloud-based ERP systems typically offer better reliability since they are hosted on dedicated servers and are not subject to the same issues that on-premise systems may experience. Additionally, cloud-based ERP systems offer greater accessibility and flexibility than on-premise solutions (Hsu et al., 2007; Moon and Moon, 2007). These systems can be accessed from any device, from any location, and at any time, making them ideal for businesses that need to be able to access their data quickly and easily. Additionally, cloud-based ERP systems are usually more cost-effective than their on-premise counterparts due to the fact that businesses don't need to invest in expensive hardware, software, or IT personnel. Finally, cloud-based ERP systems can provide businesses with improved efficiency and visibility of their operations. These systems help companies to manage their resources more effectively, streamline processes, and gain better insights into their operations (Agarwal et al., 2018; Bala Subrahmanya, 2005). By adopting a cloud-based ERP system, businesses can gain greater control over their operations and make better decisions. In conclusion, cloud-based ERP systems offer a variety of benefits to businesses of all sizes. By adopting a cloud-based ERP solution,

companies can gain improved scalability, enhanced security, better reliability, greater accessibility and flexibility, improved efficiency, and visibility of their operations.

### *3.2 Cloud-based ERP adoption in South Indian SMEs*

The adoption of cloud-based ERP technology has been gaining traction in the Indian SMEs sector in recent years. Many SMEs lack the resources, experience, and technical and financial know-how to implement and manage a cloud-based ERP system successfully. A comprehensive understanding of the factors influencing the adoption of cloud-based ERP solutions in Indian SMEs is necessary. In this context, this paper aims to explore the factors that influence the adoption of cloud-based ERP solutions in Indian SMEs. Specifically, the paper will examine how the perceived benefits, costs, risks, organisational readiness, and external pressures play a role in influencing the adoption intention of cloud-based ERP solutions. Furthermore, the paper will discuss the implications of the adopted cloud-based ERP solution on the performance of Indian SMEs. Finally, the paper will conclude with recommendations for successfully adopting cloud-based ERP solutions in Indian SMEs.

### *3.3 Entrepreneurial orientation*

EO is a mindset that focuses on business growth, innovation, and risk-taking. It is a concept that refers to the strategies, processes, and actions that an organisation takes to create and exploit new opportunities successfully (Adam et al., 2022). This orientation is often seen as the driving force behind an organisation's success, as it encourages a culture of creativity, risk-taking, and growth. Organisations with an EO exhibit characteristics such as innovation, proactivity, flexibility, and adaptability (Ratten, 2023). They are willing to take risks and are focused on creating new products and services that add value to the customer and finding new ways to grow their business (Catala et al., 2023; Simba et al., 2023; Sufyan et al., 2023). By taking calculated risks and displaying a strong entrepreneurial spirit, organisations can increase their chances of success and become more competitive in the marketplace (Teyi et al., 2023).

The literature suggests that EO is an essential factor in the success of a business (Alshebami, 2023; Basco et al., 2020; Fan et al., 2021; Pratono and Mahmood, 2015a; Upadhyay et al., n.d.). It has been found to positively influence performance outcomes, particularly in competitive and dynamic environments. Additionally, research has identified a variety of internal and external factors that can affect a firm's EO, providing insight into the drivers of entrepreneurial behaviour (Malibari and Bajaba, 2022; Murad et al., 2022; Nguyen et al., 2021).

This review considers research on the antecedents and consequences of EO. Research has identified various internal and external factors that affect EO (Catala et al., 2023; Egberi, 2023; McCartan, 2023). Internally, organisational culture (Ali et al., 2017; Arabeche et al., 2022; Khedhaouria et al., 2020) and strategy, leadership, resources, and organisational structure can influence the degree to which a company exhibits EO. Externally, market dynamics, competitive pressure, and environmental and technological change (Bendig et al., 2023) can also influence the degree to which a company is oriented towards entrepreneurship.

### 3.4 *Marketing performance*

MP is typically measured by evaluating the success of a campaign in terms of its ability to meet or exceed the desired objectives. Standard metrics used to measure MP include customer acquisition, revenue, leads generated, customer engagement (Guerola-Navarro et al., 2022; Manishimwe et al., 2022; Sahi et al., 2018), and customer retention (Afriyie et al., 2020; Hanaysha and Al-Shaikh, 2022; Pratono and Mahmood, 2015b). For example, a marketing team may measure the success of a campaign by looking at the number of customers acquired, the revenue generated, the number of leads generated, the engagement rate, and the customer retention rate. Additionally, other metrics such as website visits, cost per acquisition, and return on investment (ROI) may be used to evaluate the effectiveness of a marketing campaign.

Additionally, research has been conducted to identify the best practices for measuring MP. These studies have explored the use of new metrics, such as engagement rate, and have looked at ways to integrate different metrics into a unified system. Furthermore, studies have examined the impact of other marketing channels and strategies on overall performance. Finally, research has looked at the effectiveness of various marketing tactics and the use of technology to measure and analyse MP.

### 3.5 *Relationship between EO and MP*

Recent research has shown that EO plays an essential role in MP. A study of 619 SMEs (Solé, 2013) found that EO positively affected MP, with the most substantial effects being on price and promotion performance. Similarly, in a study of 686 small and medium-sized enterprises in Turkey, Yalçın found that EO positively affected MP, with the most substantial effects being on price and promotion performance. In a study of 246 small and medium-sized enterprises in Turkey, Suandi et al. (2023) found that EO positively affected MP, with the strongest effects being on customer service and product quality performance. They also found that EO had a moderate positive effect on sales performance. Similarly, in a study of 160 SMEs in the UK (Gomes et al., 2022) found that EO positively affected MP, with the strongest effects being on sales and customer service performance. These studies illustrate the importance of EO for MP. Further, they suggest that firms should develop strategies to enhance EO to improve their MP.

EO is a set of behaviours that helps seek out and exploit opportunities (Sarwoko and Nurfarida, 2021). It is believed to be an important factor in MP. The research studies that have been conducted in this field have shown a positive relationship between EO and MP (Eggers et al., 2020; Gbandi and Oware, 2023; Hoque and Awang, 2019). This research paper discussed the relationship between EO and firm performance. It was found that EO had a direct effect on firm performance. This research paper studied the relationship between EO and MP (Abdul et al., 2022; Rezvani and Fathollahzadeh, 2020). It was found that EO had a positive and significant effect on MP. This paper examined the relationship between EO and economic growth. It was found that EO had a positive and significant effect on economic growth (Abbas et al., 2022; Eggers et al., 2013).

H1 EO positively related to MP.

### *3.6 Relationship between cloud-based ERP adoption intention and EO*

EO is an important concept that has gained traction in the management literature over the last decade. It focuses on the “proactive and risk-taking nature of entrepreneurs” essential to success in a competitive business environment (Covin and Slevin, 1989). According to Covin and Slevin (1989), EO is comprised of three dimensions: innovation, proactivity, and risk-taking. This concept has been applied to various contexts and industries, including adopting cloud-based ERP systems.

H2 EO positively related to cloud-based ERP adoption intention.

### *3.7 Relationship between cloud-based ERP adoption and MP*

The research on cloud-based ERP adoption intention on firm performance has increased significantly in recent years as organisations continue to seek ways to optimise their operations. The literature review of this topic explores various aspects of cloud-based ERP adoption intentions, such as the drivers and barriers of adoption, the impact of adoption on firm performance, organisational strategies for successful implementation, and best practices for successful adoption. The literature review findings indicate that the primary drivers of cloud-based ERP adoption intention are cost savings, improved access to data and information, faster implementation, and improved customer service. In addition, the literature review found that the primary barriers to adoption include security and privacy concerns, lack of technical knowledge and resources, and organisational resistance to change. The literature review also revealed that the impact of cloud-based ERP adoption on firm performance is positive, with organisations experiencing increased efficiency, reduced costs, improved customer service, and better data analytics capabilities. Furthermore, the literature review revealed that successful implementations require understanding the organisation’s objectives, detailed planning and testing, adequate training and support, and ongoing monitoring and assessment (Ferguson et al., 2017; Hossain and Al Asheq, 2020). Finally, the literature review found that best practices for successful cloud-based ERP adoption include implementing a clear roadmap, developing an effective communication strategy, and leveraging existing resources and tools (Muhos, 2015; Pastuszak, 2004). Overall, the literature review provides a comprehensive overview of the drivers, barriers, impacts, and best practices for cloud-based ERP adoption intention on firm performance. The findings suggest that organisations should consider the various aspects of cloud-based ERP adoption when evaluating their current processes and planning for future implementations.

H3 Cloud-based ERP adoption intention positively related to MP.

### *3.8 The mediating effect of cloud-based ERP adoption intention in the relationship between EO and MP*

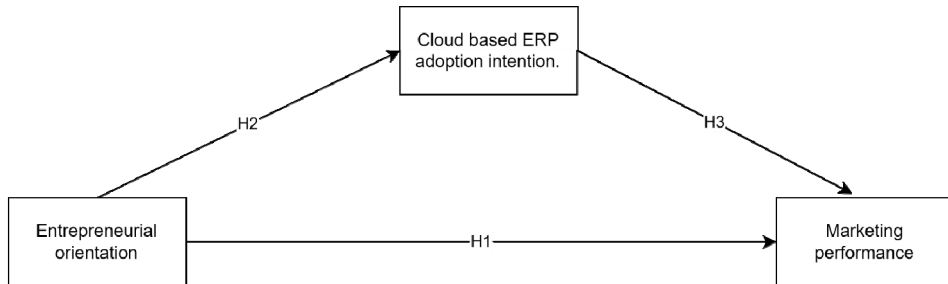
Research has found that higher levels of EO are associated with higher levels of MP (Ahmed et al., 2019). Furthermore, research has suggested that the use of cloud-based ERP systems can facilitate the implementation of EO strategies and enhance MP. This study aims to examine the mediating effect of cloud-based ERP adoption intention on the relationship between EO and MP. To this end, a literature review was conducted to investigate the current state of research on this topic. The review results indicate that few



studies have directly examined the mediating effect of cloud-based ERP adoption intention on the relationship between EO and MP. However, the existing research suggests that cloud-based ERP systems can facilitate the implementation of EO strategies and enhance MP. Therefore, this study contributes to the existing literature by providing an in-depth analysis of the mediating effect of cloud-based ERP adoption intention on the relationship between EO and MP.

H4 Cloud-based ERP adoption intention positively mediates the relationship between EO and MP.

**Figure 1** Research framework and hypothesised relationship



*Source:* Author own creation

## 4 Research methodology

### 4.1 Data collection and sample design

The main purpose of the study primary data was collected from owners and managers of SMEs in south India. This SME was chosen because cloud-based ERP adoption is mainly used in service and manufacturing SMEs in south India. Technology adoption in firms is more prominent to use in this modern era. This study used the purposive sampling technique, which is one of the most common types of non-probability sampling in which units are picked with a specific purpose. As a result, the researchers used a method known as purposive sampling. The targeted companies were in Bangalore, Chennai, Hyderabad, and Kerala. These cities were mainly nominated because of data availability and because it is a hub for IT, manufacturing, and service sectors. Data can be collected through a structured questionnaire that measures variables related to EO, cloud-based ERP adoption intention, and MP. The study can utilise a quantitative research design to collect and analyse data. This design would involve administering a survey questionnaire to collect data from the target population like owners and managers. The questionnaire can consist of five point Likert scale. The questionnaire can be administered online or in person with the help of trained researchers. The data collection started from 15 April 2023 to 10 July 2023. The overall responses received 112. In this we eliminated missing data and late responses. The overall sampling of the study is 98.

## 4.2 *Measurement*

EO the five-item scale of Alves and Carvalho (2022), Arabeche et al. (2022), Hussain et al. (2021), Ibarra-Cisneros et al. (2022), Nasution et al. (2021) and Octavia et al. (2020) was used and accessed by a five-point Lickert scale (1 = strongly disagree 5 = strongly agree). Cloud-based ERP adoption intention the five-item scale of Ahn and Ahn (2020) was used and accessed by five points Lickert scale (1=strongly disagree 5 = strongly agree) MP the five-item scale of Gamage and Kumara (2020), Hidayatullah et al. (2019), Sahi et al. (2018), Wang et al. (2012) and Wiji Prasetyo and Pertiwi (2021) was used and accessed by five-point Lickert scale (1 = strongly disagree; 5 = strongly agree).

## 4.3 *Data analysis tool*

Based on the responses, the study employed to analyse the data through PLS-SEM. The SEM is particularly very helpful in understanding the correlation between the variables (Kwong and Wong, 2013). The PLS-SEM is mainly recommended for the limited hypothesis (Gentle et al., n.d.; Hair et al., 2017). PLS-SEM is advised when the study is limited to a few hypotheses, the framework cannot be precisely measured, and the data does not match the normal distribution (Chin et al., 2020). PLS-SEM is more useful for better findings in the study. In addition, the PLS-SEM was more appropriate because the CB-SEM requires certain preconditions to be met before it can be used (Hair et al., 2019). These preconditions concern the sample size, the normal distribution of the sample, and the accuracy with which the model is specified. In order to transform a theory into a structural equation model (SEM), these criteria require the selection of relevant variables and the establishment of relevant relationships between them (Richter et al., 2016). These requirements might be satisfied via PLS-SEM. In this study, we used Smart PLS 4.0 software for data analysis.

## 4.4 *Model development*

The study examines the process of which cloud-based ERP adoption intention on MP. The PLS-SEM model comprised the relationship between cloud-based ERP adoption intention, EO, and MP. A PLS-SEM model consists of two models. A measurement model and structural model. A structural model that indicates the latent variables and their relationships. In this study EO, cloud-based ERP adoption intention, and MP as latent variables. The current study adopted scales from the literature on EO, cloud-based ERP adoption intention and firm performance. The measurement model indicates the indicators and their relationship with relevant variables.

# 5 **Data analysis**

## 5.1 *Descriptive analysis*

The demographic profile of respondents is shown in Table 1. The demographic profile contains the category, subcategory, frequency and percentage. There are 98 responses used for this analysis, starting with the gender category, with 91 male respondents or

92.9% of the survey and 7.1% of female respondents. Most respondents are between 40–50 years (55.1%). For educational qualification, the majority received undergraduate (52%). For role, the majority of respondent's 51 managers (52%). The service sector has a major response of 46%; the next manufacturing sector has 27%. In addition, the whole selling and retailing sectors have (11% and 14%). Furthermore, in the establishment of the year (firm age), the highest responses from above ten years of firm 36%.

**Table 1** Demographic characteristic of the respondents

<i>Category</i>	<i>Sub category</i>	<i>Frequency</i>	<i>Percentage</i>
Gender	Male	91	92.9
	Female	7	7.1
Age	20–30 years	5	5.1
	30–40 years	21	21.4
	40–50 years	54	55.1
	50–60 years	13	13.3
	60-above	5	5.1
Educational qualification	>High school	29	29.6
	Undergraduate	50	52.0
	Masters	18	18.4
Role	Owner	51	52.0
	Manager	32	32.7
	The person who charges of the firm	15	15.3
Sector	Manufacturing	27	27.6
	Service	46	46.9
	Whole selling	11	11.2
	Retailing	14	14.3
Establishment year	>5 years	29	29.6
	5–10 years	33	33.7
	Above 10 years	36	36.7
Total		98	100

## 5.2 Measurement model

As per our research, we conducted composite reliability, convergent validity, and discriminant validity test. Item level reliability denotes construct to item loading should be above 0.70. As per our analysis, all outer loading values are above 0.70, but especially in EO items (EO4 and EO5), values are 0.64, 0.66 but are lesser than the threshold value. But at the same time, these loadings are closer to threshold values. At the construct level, we performed composite reliability; Cronbach's alpha values surprised the threshold of 0.70. First convergent validity was denoted AVE values are greater than the threshold value 0.50. In this study, all average values are greater than the threshold value so the convergent validity is acceptable. Cronbach's alpha is recommended for determining the internal consistency of freshly constructed variables, especially those using Likert scale questions. Cronbach's alpha is statistical tools that can be utilise to evaluate a scale's

internal consistency. The survey questionnaire that will be used for this study is being design with the help of measurement scales that have been adopted from previous investigations. The questions that tested the same construct were computed by establishing one independent variable to give the collected data greater relevance. The independent variables used in this study are 'EO', the mediating variable is 'cloud-based ERP adoption intention', and dependent variable is 'MP'.

**Table 2** Reliability and validity of the construct

<i>Construct</i>		<i>Indicator</i>	<i>Loadings</i>	<i>CR</i>	<i>CA</i>	<i>AVE</i>
Entrepreneurial orientation	EO1	Our firm makes significant changes in the services offered on a regular basis	0.853	0.889	0.841	0.62
	EO2	Our firm has created services and products that no other competitor owns	0.867			
	EO3	In relation to our competitors, our hotel has a greater ability to identify the needs and wants of customers	0.875			
	EO4	When our firm faces a decision with a certain degree of uncertainty, we usually take a risk stance in order to obtain greater benefits despite the risk	0.644			
	EO5	We prefer to undertake high-risk investment projects since income expectations are higher	0.664			
Cloud based ERP adoption intention	ERP1	We strongly intend to use cloud-based ERP in our company	0.825	0.923	0.895	0.705
	ERP2	We like the idea of using cloud-based ERP systems	0.9			
	ERP3	Overall, we have a favourable attitude toward cloud-based ERP implementation	0.854			
	ERP4	Our company is deeply discussing the adoption of cloud-based ERP	0.779			
	ERP5	Our company is preparing for the adoption of cloud-based ERP	0.836			
Marketing performance	MP1	Souvenir sales increase every year	0.816	0.937	0.92	0.714
	MP2	Customer satisfaction has increased	0.796			
	MP3	Market share growth goal achievement	0.812			
	MP4	Sales growth goal achievement	0.891			
	MP5	Return-on-investment goal achievement	0.836			
	MP6	Return-on-assets	0.913			

Notes: Cronbach's alpha, CR = composite reliability, AVE = average variance extracted, EO: Entrepreneurial orientation, ERP: Cloud-based ERP adoption intention, MP: Marketing performance

The item loadings were investigated to determine whether the index was reliable for use in model measurement. Each of the measures' loadings ought to have a value of at least 0.70 to satisfy the index reliability (Hair et al., 2014). AVE was used to measure convergent validity, which is acceptable if all constructs have AVE values above 0.5 (Fornell and Larcker, 1981). AVE was used to measure convergent validity, which is acceptable if all constructs have AVE values above 0.5.

### 5.3 Discriminant validity and Reliability analysis

Discriminant values can be divided into two approaches. Fornell-Larcker and HTMT matrix. First, the Fornell-Larcker criterion denotes each construct's outer loading values are greater than with its cross-loading values with other constructs (Fornell and Larcker, 1981). The second thing we did was check the heterotrait-monotrait ratio (HTMT) to ensure that the constructs' results were lower than 0.85. Using the previous tests, we determined that first-order reflective measures are legitimate to work with and support the appropriateness of all items as good indicators for their respective constructs.

**Table 3** Discriminant validity of Fornell-Larcker criterion and HTMT criterion

<i>Fornell-Larcker</i>	<i>EO</i>	<i>ERP</i>	<i>MP</i>
EO	0.787		
ERP	0.789	0.84	
MP	0.605	0.298	0.845
<i>HTMT</i>	<i>EO</i>	<i>ERP</i>	<i>MP</i>
EO	-		
ERP	0.877	-	
MP	0.715	0.324	-

Loadings and cross-loadings of indicators were analysed to determine the discriminant validity of constructs. According to Barclay, each indicator's cross-loading on its construct should be higher than cross-loadings on other constructs. All elements on their respective constructs are loaded more heavily than any other construct, indicating satisfactory individual indicator dependability (Hair et al., 2017).

### 5.4 Goodness of fit indices

The goodness-of-fit index (GFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) are three other common metrics of fit that are used in structural equation modelling (SEM). It is recommended that the GFI be equal to or more than 0.90 and the CFI be equal to or greater than 0.95 to have a good fit. In the case of RMSEA, the value should fall somewhere in the range of 0.04 to 0.07, with a value of less than 0.05 indicating a close fit, values between 0.05 and 0.08 indicating a good match, values between 0.08 and 0.10 indicating a mediocre fit, and values greater than 0.10 indicating a poor fit.

**Table 4** goodness of fit for SEM model

$\chi^2$	$\chi^2/df$	RMSEA	GFI	NFI
460.277	3.391	0.158	0.992	0.688

In Table 4 depicts goodness of fit for SEM model. Chi square value should be less, the overall model should be good. In this way current study have less chi square value 460.277 the overall model is good. Chi square/DF value is <3 is good, but in this case our study results should 3.391 it does have good model fit. RMSEA value should <0.05 good, our study findings of RMSEA value is 0.158. As per threshold value of GFI is  $\Rightarrow$ 0.95, our study findings should 0.992 the overall results should be very fit. The NFI value  $\Rightarrow$ 0.80 is good, our findings should 0.688 it is similar to the threshold value.

### 5.5 Structural model

This study applied a composite reliability test for EO, cloud-based ERP adoption intention, and MP Cronbach alpha. Average and outer loading evaluated convergent validity (Hair et al., 2014, 2017). A reliability test determines if the questionnaire can be used again. The output square multiple correlations show all indicators have estimated values over 0.600. The questionnaire measuring tool passes reliability standards because the value exceeds 0.600. Skewness and kurtosis are important when assessing the normality assumption of data in statistical analysis. Deviations from normality can affect the validity of certain statistical tests and models. Absolute value greater than 2 indicates a significantly skewed distribution. Excess kurtosis (kurtosis minus 3) greater than 7 indicates a significantly heavy-tailed or leptokurtic distribution (more peaked and thick-tailed than a normal distribution). In this study, the skewness value is 2.58, and the kurtosis value is 5.60, overall the threshold value is attained. Overall the normality is good.

**Table 5** Hypothesis results (Direct&Indirect)

Hypothesis	Structural path	Effect	$F^2$ value	T values	P values	Decision
H1	EO $\rightarrow$ MP	0.980	0.661	6.956***	0	Supported
H2	EO $\rightarrow$ ERP	0.789	1.648	21.117***	0	Supported
H3	ERP $\rightarrow$ MP	-0.475	0.156	2.634*	0.008	Supported

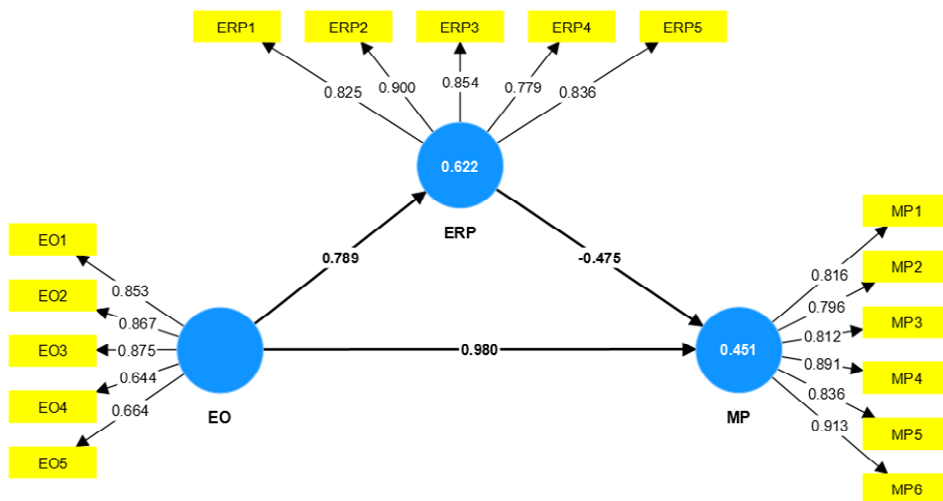
Notes: \* $p \leq 0.05$ ;  $p \leq 0.01$  bootstrapping based on  $n = 500$  subsamples at 95% confidence interval

\*\*Denote t-values 2.326 (one-tailed t-test), significant at  $p < 0.01$

In addition to using Smart PLS, the bootstrapping method was applied to the hypothesis testing process. Due to the method's high dependability level, bootstrapping is highly suggest for PLS-SEM analysis. We used the SmartPLS 4.0 version for the hypothesis testing, and for the bootstrapping, we employed 5,000 different subsets. The first hypothesis, EO, is positively associated with MP ( $\beta = 0.980$ ,  $t = 6.956$ ,  $p < 0.01$ ) and accepted. The second hypothesis, EO is positively related to cloud-based ERP adoption intention ( $\beta = 0.789$ ,  $t = 21.11$ ,  $p < 0.01$ ) and accepted. The third hypothesis, cloud-based ERP adoption intention is positively related to MP ( $\beta = -0.475$ ,  $t = 2.63$ ,  $p < 0.008$ ) and is partially accepted. The final hypothesis path coefficient value is negative impact but the overall t value is 2.63 it does have positive impact.

The value of  $f^2$  can be used to determine whether or not exogenous variables affect endogenous variables (Imran et al., 2021). As suggested by Cohen (1988), the  $f^2$  can be segmented into a lot of subcategories, the smallest effect ( $f^2 = 0.02$ ), the medium effect ( $f^2 = 0.15$ ), and the largest effect ( $f^2 = 0.35$ ). According to Table 5 the impact of EO on cloud-based ERP adoption intention  $f^2$  value is 1.648 it does have the largest effect. The first hypothesis is that EO positively impacts MP. The  $f^2$  value is 0.661. It does have the largest effect. The third hypothesis presents that cloud-based ERP adoption intention positively impacts MP. The  $f^2$  value is 0.156 it does have medium effect size. The relationship of variables is shown in Figure 2 and Figure 3. Figure 2 shows the measurement model assessment it contains path coefficient values as well as the  $R^2$  values. Figure 3 shows the structural equation model and contains each indicator's T values.

**Figure 2** Results of measurement model assessment (see online version for colours)



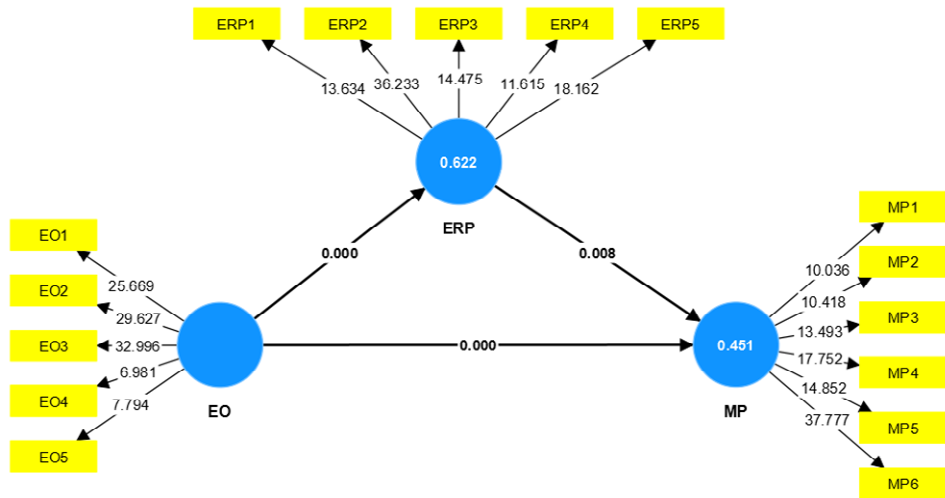
Notes: EO: entrepreneurial orientation; ERP: cloud-based ERP adoption intention; MP: marketing performance.

Source: Author own creation in smart PLS

### 5.6 Importance-performance map analysis

By using the IPMA, researchers can improve their SEM analysis and get additional insights. The novel IPMA method adds a dimension that takes into account the average values of the latent variable scores (performances) and extends the results of the estimated path coefficient. According to IPMA, it distinguishes between areas of low, moderate, and high importance performance for crucial components and qualities, allowing researchers to make meaningful contribution to practical applications. To rank the target variables (MP), this study uses an IPMA with a GSCA estimator, which offers a novel method for looking into problems in the manufacturing SME sectors.

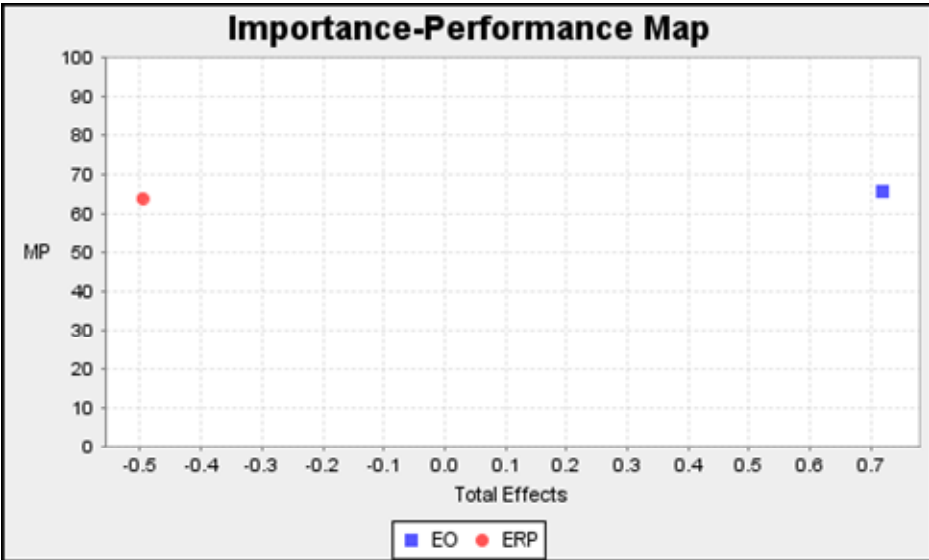
**Figure 3** Structural model results (see online version for colours)



Notes: EO: entrepreneurial orientation; ERP: cloud-based ERP adoption intention;  
MP: marketing performance.

Source: Authors own creation in smart PLS

**Figure 4** Importance performance map (constructs – standardised effects) (see online version for colours)



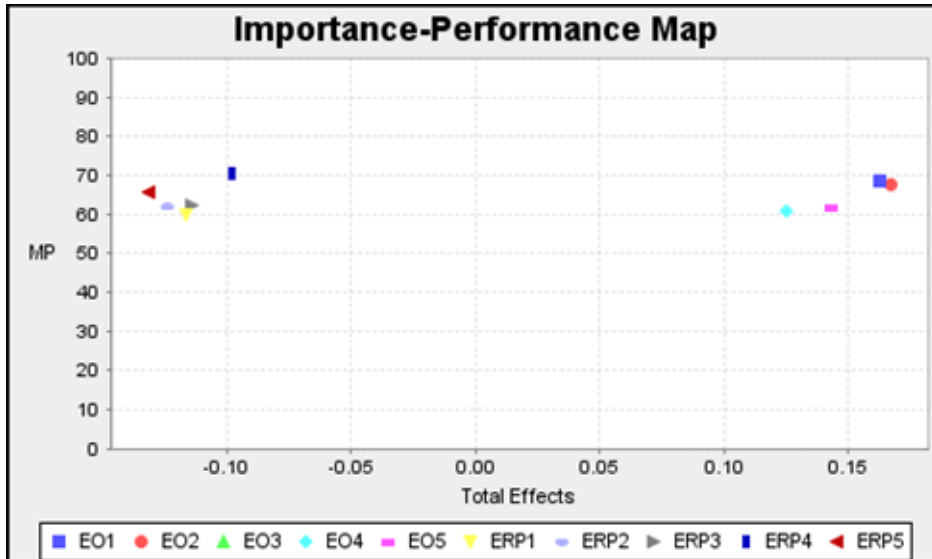
Notes: EO: entrepreneurial orientation; ERP: cloud-based ERP adoption intention;  
MP: marketing performance.

The x-axis represents the EO and cloud-based ERP adoption intention. The Y-axis represents the target variable (MP). Figure 4 displays the standardised effects of constructs. In this study, EO on MP is moderate performance. Cloud-based ERP



Adoption and intention performance also increase very similar performance to EO. These both variables have moderate performance analysis on MP. Figure 5 demonstrates the standardised effect of indicators. This study shows each indicator's performance. ERP4 and EO1 have more impactful performance. These overall indicators performance is moderate on MP.

**Figure 5** Importance performance map (indicators – standardised effects) (see online version for colours)



Notes: EO: entrepreneurial orientation; ERP: cloud-based ERP adoption intention;  
MP: marketing performance.

## 6 Discussion

The study investigated how cloud-based ERP adoption intention affects MP. The current research develops the conceptual framework, followed by empirically studied in the context of South Indian SMEs perspective. The output of the results shows the path diagram mentioned in Figure 2 and Figure 3. The hypothesis testing results show in Table 3.

EO is strongly associated with MP. This result adds to studies (Solé, 2013). Previous literature also supported that EO positively influences MP. Most of the authors proved that entrepreneurial marketing is positively associated with marketing and firm performance (Alqahtani and Uslay, 2020; Hacıoglu et al., 2012; Rezaei and Ortt, 2018; Zehir et al., 2015; Žur, 2013). But our study presents EO as significantly impacting MP through competitive advantage to improve MP. There are more factors influencing to improve of MP (Ahmed et al., 2019). Cloud-based ERP systems are very popular among SMES (not only in India) but at present, the ERP systems are usually combined with other systems such as business intelligence systems and CRM systems (Ruivo et al., 2014).

Several studies emphasised the positive relationship between EO and cloud-based ERP adoption intention (Do Hyung and Dedahanov, 2014). The current study findings proved that cloud-based ERP adoption intention is more important to entrepreneurial firms (Raoof et al., 2021). Especially in SMEs, the study has more scope to utilise cloud-based ERP adoption (Alsharari et al., 2020). Our findings also supported the results study of EO and Cloud-based ERP adoption intention (Okangi, 2019).

Furthermore, the current study demonstrates a partially positive relationship between Cloud-based ERP adoption intention on MP (Ahn and Ahn, 2020). Very few studies proved that cloud-based ERP adoption intention positively influences MP (Øverdal et al., 2023). Firm growth should increase when new technological adoption from a customer perspective. The study confirmed a strong positive impact on firm performance (Rawashdeh and Rawashdeh, 2023). Institutional change of cloud-based ERP can improve the public sector firms it should increase revenue growth (Alsharari, 2021).

## **7 Conclusions**

Over the decade, India has had significant developments in the infrastructure of firms, not only in the service sector all the sector growth is very high in India. In this case, the study majorly focuses on South Indian SMEs. The study focuses on the manufacturing sector and the service, wholesale, and retail sectors. The study attempted cloud-based ERP adoption intention in South Indian SMEs. The study shows the relationship between EO, cloud-based ERP adoption intention, and MP. The findings also confirmed that cloud-based ERP adoption intention and EO strategies improve the firm performance.

### *7.1 Theoretical implication*

The theoretical contribution may provide three aspects. First, the study examines the relationship between EO and MP, there are very limited studies addressed in this area. Second, the study explores the mediating effect of cloud-based ERP adoption intention in the relationship between EO and MP. We provide empirical evidence for the effect of the mediating variable, which is not previously point out in the previous literature. The current literature gives the theoretical lens and the relationship between EO, cloud-based ERP adoption intention, and MP. Third, the study examines the relationship between the variables in the context of South Indian SMEs. Further investigation may focus on retailing industry of South Indian SMEs.

### *7.2 Managerial implication*

The adoption of cloud-based ERP systems can have a significant impact on entrepreneurial firms. These systems provide a range of benefits that could be advantageous to a business of any size, including scalability, cost-efficiency, and improved visibility into data. For entrepreneurial firms, the scalability provided by cloud-based ERP systems can be particularly beneficial. This scalability can help a business adapt to changes in customer demand quickly or expand operations without investing in additional hardware or software. It can help a business to remain competitive in a dynamic marketplace. In addition, cloud-based ERP systems can help to reduce the cost of operations for entrepreneurial firms. These systems can be implements quickly

and without significant upfront investments, meaning businesses can begin to experience the benefits of an ERP system without needing a substantial financial outlay. Finally, cloud-based ERP systems can provide improved visibility into data, enabling entrepreneurs to make more informed decisions. This improved insight can be vital for entrepreneurs striving to identify and take advantage of new opportunities. In conclusion, adopting cloud-based ERP systems can benefit entrepreneurial firms, including scalability, cost-efficiency, and improved visibility into data. These benefits can help a business remain competitive and identify new growth opportunities.

### *7.3 Practical implication*

The study results will provide insights to SME owners and managers to improve their MP by implementing EO strategies and the cloud-based ERP adoption intention in South Indian SMEs. Additionally, the study adopted a diffusion innovation theory to implement new innovative ideas to improve the firm performance. Firm managers and decision-makers should implement new technology to achieve performance. Firm growth depends upon creative ideas and strategies to implement in SMEs.

## **8 Limitations and future scope**

The study contains certain limitations. First, the study sample size is limited to the area based on the study's response for further analysis. Further studies may focus on firm size and different sectors in this region. Second, since no study has been conducted between EO and cloud-based ERP adoption intention and MP, further study may focus on organisational culture and climate as mediating variables in this South Indian context. Third, the conceptual framework tested in a developing country context may apply to a developed country context. In addition, future studies may focus on emotional artificial intelligence (AI) in the SME context. The following are the impactful future direction.

- 1 Implementing cloud-based ERP solutions for SMEs: Cloud-based ERP solutions can be a great fit for manufacturing SMEs, as they provide the same functionality as on-premise solutions without the need for expensive hardware or IT staff. Cloud-based ERP solutions offer a low-cost, quick-to-implement solution for SMEs, which is why they are becoming increasingly popular.
- 2 Leveraging analytics and AI: Cloud-based ERP solutions offer a great platform for SMEs to leverage the power of analytics and AI. By leveraging analytics and AI, SMEs can gain better insights into their operations, improve production processes, and reduce costs.
- 3 Automating processes can help to manufacture SMEs streamline operations and reduce costs. Cloud-based ERP solutions can help SMEs to automate their processes, such as billing, inventory management, and order fulfilment.
- 4 Integrating with other systems: Cloud-based ERP solutions can be integrated with other systems, such as CRM systems and accounting software. It allows SMEs to have a single data source and streamline their operations.

- 5 Moving towards a more collaborative approach: Cloud-based ERP solutions offer a more collaborative approach to managing operations, enabling multiple users to access the same data from different locations. Study allows SMEs to work remotely and collaborate more efficiently.

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