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Innovation capability as a catalyst: unravelling the mediating effect between entrepreneurial orientation and firm performance in family businesses

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Abstract: The study aims to investigate the mediating effect of innovation capability (IC) in the relationship between entrepreneurial orientation (EO) and firm performance (FP) in family businesses in India. In this study, we proposed a conceptual framework that adopted the diffusion innovation theory. Data collection was through structured questionnaire online survey, and non-probability purposive sampling method was used. Descriptive analysis through SPSS and hypothesis testing were done using PLS-SEM through smart PLS 4.0 software. The research model was examined using structural equation modelling. The study findings reveal entrepreneurial orientation positively influences the firm performance. The findings further disclosed that entrepreneurial orientation is positively related to innovation capability. Finally, innovation capability mediates the positive relationship between entrepreneurial orientation and firm performance. The study contributes to the literature by demonstrating how innovation capabilities and entrepreneurial orientation affect family business performance. Hence, the present study has numerous theoretical, research, and practical implications and limitations.

Keywords: innovation capability; entrepreneurial orientation; firm performance; diffusion innovation theory; family firms.

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1 Introduction

In today's competitive world, innovation plays a prominent in every organisation. To foster innovation capability (IC) in entrepreneurial firms, organisations must build an environment where creativity and innovation can thrive (Gomes et al., 2022). Entrepreneurial orientation (EO) has become an increasingly popular research topic in recent years as firms seek to enhance their competitive advantage. EO and IC are two elements that strongly affect a firm's performance. They are essential values for enterprises to observe if they wish to stay competitive and succeed in the long run. EO involves establishing a more innovative work culture and looking for opportunities to capitalise on new market demands. IC is a measure of a firm's capacity to use creativity and new ideas to develop new products and processes. This can help organisations increase efficiency and remain competitive. When combined, EO and IC can produce higher levels of firm performance (FP).

Family businesses have been integral to the Indian economy, contributing to approximately 50% of the national gross domestic product (GDP). Traditionally, family businesses in India have been run by strong patriarchal figures. However, the rise of competition and technology has resulted in a rapid transformation of these businesses (Salloum et al., 2016). Today, the Indian family business landscape is much more diverse, with more family members becoming actively involved. These businesses are now transitioning to incorporate modern management practices such as greater accountability and transparency while maintaining their traditional values and practices. The link between IC, FP, and EO has been a topic of keen interest for scholars and researchers since the inception of the EO concept in 1988.

The study's main aims to fill the research gap in an understudied area and investigate the relationship between EO, IC, and FP in the context of emerging market SMEs (Jing et al., 2023; Radicic and Petković, 2023). Currently, there is a lack of research that specifically examines the relationship between IC and FP, as well as the effect of EO on a firm's IC and overall performance. This research gap (Jalilvand et al., 2019) is important since understanding the relationship between IC and FP, as well as the role that EO plays in fostering IC and FP, can provide insights into how businesses can better pursue and capitalise on innovative opportunities. Additionally, the absence of research into this area leaves managers without an evidence-based framework to assess the impact of their firm's IC and EO on their firm's overall performance. In addition to Brouthers et al. (2022), Ha (2022) and Guan and Kwon (2022), the study examined the relationship between social performances on operational sustainability in micro-enterprises in emerging economies for achieving competitive advantage.

Initially, the focus was on identifying the various dimensions of EO and exploring how this influences FP (Makhloufi et al., 2021). This has been followed by more specific research exploring how IC, which has been shown to be a key indicator of FP, is enhanced by fostering EO. Recent research has sought to explore the mechanisms

through which IC and EO interact to accelerate an organisation's performance. Investigation into the links between IC, FP, and EO is ongoing, with scholars and researchers continuing to investigate emergent approaches and explore potential synergies between key concepts.

The study is structured as follows; the first part depicts the introduction and background. The second part describes the literature review and theoretical underpinnings of the study. The third section illustrates the methodology and research design. The fourth section contains the data analysis and results. The fifth section contains the discussion part. The final section provides the theoretical, managerial, limitation and future direction.

2 Literature review

2.1 Theoretical foundation

Diffusion innovation theory, also known as Diffusion of Innovations, is a theory that seeks to explain how, why, and at what rate new ideas and technology spread (Dearing and Cox, 2018). It specifically looks at the different types of adopters of a new technology and how time and social systems influence its rate of adoption. According to Makhdoom et al. (2019) and Miller and Garnsey (2000), this theory, new products, expansion or technological advancements introduced within a social system or organisation traverse over time among the members. It is applicable in several areas such as telecommunications, healthcare, agriculture and marketing. The theory was developed in the late 1950s by EM. Rogers and has been highly influential in the field of innovation studies ever since. Several industries and organisations employ this theory to foster cognition of new ideas and innovations. The theory outlines five main stages in which members can adopt an innovation: knowledge, persuasion, decision, implementation and confirmation. Each stage is characterised by certain responses from the adopters, enabling them to understand and accept the new innovation successfully.

The diffusion innovation theory is an organisational structure that helps transfer knowledge, ideas, and innovation processes among entrepreneurial firms (Hossain, 2020). It provides a framework that allows firms to gain access to the knowledge and resources they need to be successful in an increasingly competitive marketplace. Through the diffusion innovation theory, organisations can better learn from each other, develop more effective product and market strategies, and collaborate to create new and innovative products and services (Durac et al., 2023; Makhdoom et al., 2019; Ramani et al., 2012). The diffusion innovation theory also enables entrepreneurial firms to access a myriad of external resources, such as research firms, industry-specific experts, and educational institutions, that may not otherwise be available. This allows businesses to stay competitive, thus helping them remain successful in the long-term.

2.2 Entrepreneurship and entrepreneurial orientation

In the field of entrepreneurship, EO is defined as the degrees to which an individual or a company takes risks to pursue opportunities (Ratten, 2023). It has been recognised as an important factor in the success of a venture. Oftentimes, successful companies have founders with higher levels of EO than competitors (Hossain and Al Asheq, 2019). EO

has become an important topic of research in the field of entrepreneurship due to its importance in improving a ventures chance of success. There is an accumulating body of literature that has described various aspects of EO, its drivers and its relationship to overall FP. Some studies have found that EO can lead to range of positive outcomes for an organisation. For example, EO has been found to increase levels of innovation, financial performance, opportunity identification and speed of global business expansion. Other studies (Meekaewkunchorn et al., 2021) have shown that EO can improve the overall strategic management of a company such as through better decision making and increased resource utilisation capabilities. In addition, Jalali (2023) and Sari et al. (2023) studies have also identified a number of individual-level drivers of EO, including risk-taking propensity, ambition and openness to change. There is also a body of research which links EO to certain organisational-level factors, such as the level of top management commitment to new ventures, the presence of a supportive culture, and the presence of a supportive business environment. Moreover, Alshebami (2023) recent research has explored the relationship between EO and certain demographics such as gender, age and education and found that these demographics can play a role in influencing individuals' EO. The studies (Gbandi and Oware, 2023) reviewed highlight the importance of examining individual, organisational and external factors that influence EO in order to ensure optimal performance of a venture.

2.3 Innovation and innovation capability

Generally, innovation is seen as a continuous process of creating, originating and diffusing new knowledge and products in a given organisation (Arunachalam et al., 2018). It involves learning and capitalising on knowledge. According to Ferreira et al. (2020), the concept of IC has become increasingly important in the current business environment. IC has been defined as an "entity's ability to create value by bringing together resources to create new and improved products, processes, services and markets". IC is usually conceptualised as a combination of individual, group and organisational capabilities. Among individual capabilities, the importance of creativity and individual skills is highlighted (Sulistyo, 2016). Organisational capabilities encompass the capacity to acquire and effectively use resources (Makhloufi et al., 2021). Among group capabilities, knowledge management systems, knowledge sharing, and open communications are important elements. Various authors have proposed different models to help organisations understand and measure their IC.

2.4 Relationship between EO and FP

Numerous studies have examined the relationship between EO and FP. Research indicates that firms with a higher degree of EO have higher profit returns, survival rates, and growth rates compared to those with lower degrees of EO. Alqahtani and Uslay (2020), Kor and Mahoney (2005), Rezaei and Ortt (2018) and Soares and Perin (2020) conducted a literature review to examine the impact of EO on FP. They found that firms with higher levels of EO tend to have better performance outcomes, including higher profitability, greater product innovation, higher market share, and increased market share. These findings were supported by a number of studies, including Van Doorn and Volberda (2009), who found that EO positively affected a firm's ability to introduce new

products and services. Covin and Slevin (1988), Covin and Wales (2019), Slevin and Covin (1997) EO was significantly related to a firm's market share, sales, and profit growth. Similarly, Lumpkin and Dess (1996) found statistically significant relationships between greater EO, increased sales growth, and higher market shares for the firms studied. Al-Tabbaa et al. (2022) found that highly entrepreneurial firms had higher growth rates when compared to non-entrepreneurial firms. They also reported that an "organization's corporate culture and its entrepreneurial orientation may complement one another, resulting in improved organizational performance". Overall, research has consistently demonstrated that firms with higher levels of EO have higher returns, survival rates, and growth rates. Furthermore, it has been established that setting clear organisational goals, using innovative strategies, and possessing an entrepreneurial culture (Ali et al., 2017; Jardim et al., 2021; Khedhaouria et al., 2020) can all lead to improved FP. The author (Chou et al., 2017) investigated relationship between innovation on entrepreneurial firms with behavioural game theory perspective.

H1 EO positively affects FP in the family business.

2.5 Relationship between EO and IC

The literature on the relationship between EO and IC is well-developed and growing (Luiz dos Santos and Vieira Marinho, 2018; Sari et al., 2023; Widyanti and Mahfudz, 2020). Studies suggest that EO is an essential tool that can be used to help understand and influence IC. Evidence (Ferreira et al., 2020; Lee et al., 2019) suggests that EO important for firms to consider when developing and managing their IC. For instance, research has (Zhang, 2017) found that higher levels of EO positively influence the degree of innovativeness and innovation performance of firms (Zehir et al., 2015). For example, Genc et al. (2019) found that firms with higher EO are more likely to have higher levels of innovation, with such capabilities helping them to survive in a competitive environment. Research has also revealed potential mediating effects of EO on IC. For example, studies have found (Zahoor et al., 2023) an indirect, positive relationship between EO and IC via the presence of pro-innovation culture and knowledge transfer. Furthermore, research has highlighted the role of pro-innovation culture as a mediator in catalysing IC, with an influential pro-innovative culture as a prerequisite for successful innovation. Research suggests that EO is a valuable tool for firms to consider when developing and managing their ICs (Sufyan et al., 2023). Higher levels of EO can increase the likelihood of successful innovation, with factors such as pro-innovative culture, knowledge transfer, and effective organisational practices increasing the effectiveness of EO-related efforts. As such, increasing EO should feature in strategies to improve ICs. In addition to Torres and Jasso (2017) study investigated the relationship between entrepreneurial capabilities and innovation in industrialised firm context and results shows that innovation is positively significant.

H2 EO has a positive and significant impact on IC in family business.

2.6 Relationship between IC and FP

Scholars have long sought to understand the relationship between organisational IC and FP. Over the past few decades, a number of studies have been conducted to address this question. These studies generally find that organisations with strong ICs tend to have

higher levels of financial performance, on average, than organisations with weaker ICs. The literature on organisational IC and FP can be categorised into three distinct sets of research. The first set of research focuses on how investments in the development of ICs lead to comprehensive innovations and improved FP. Empirical evidence suggests that organisational investments in R&D, innovation-related activities, organisational capabilities, and structures can facilitate the development of innovative capabilities, which may in turn lead to substantive financial benefits. For example, study find that corporate R&D positively affects the corporate performance of both new and established enterprises. Similarly, study find that investments in ICs increase the odds of product innovation performance among technology firms. The second type of research examines the moderating role of contextual factors on the relationship between IC and FP. This type of research provides evidence on the role of certain contextual factors such as organisational culture, competitive dynamics, industry characteristics, and financial resources, which might affect the firm's ability to leverage its innovative capabilities for competitive advantage. For example, Haider Alvi and Ulrich (2023) and Jing et al. (2023) find that stronger competition moderates the effect of IC on business performance, such that the impact of IC is greater in high competitive pressure environments. The third type of research examines the relationship between organisational innovation and FP on a qualitative level (Jing et al., 2023; Yin and Wu, 2023). This type of research tries to understand the intricate relationship between ICs and FP from a managerial perspective, using inductive methods such as case studies and interviews. For example, study conducted an in-depth analysis of the antecedents and consequences of ICs in six companies, finding that the capacity for innovation is strongly related to superior financial performance. In conclusion, research on the relationship between organisational IC and FP supports the notion that IC is an important source of corporate success, and that effective management of ICs is key for realising the potential value of those capabilities (Catala et al., 2023). Additionally, the literature also suggests that this relationship is moderated by several contextual factors, providing evidence of the importance of considering both internal and external factors in the management of innovation. The author (Mira and Ahranjani, 2016; Carvalho and Sarkar, 2018; Yaw Oppong et al., 2016) examined the impact of innovativeness on business performance and provide impact of strategic orientation on FP in developing countries in constructing companies perspective.

H3 IC positively and significantly affects FP in the family business.

2.7 Relationship between EO, IC, and FP

Numerous studies have examined the relationship between EO and FP. Research indicates that firms with a higher degree of EO have higher profit returns, survival rates, and growth rates than those with lower degrees of EO. These findings were supported by a number of studies, including Do Hyung and Dedahanov (2014) and Vij and Bedi (2012) who found that EO positively affected a firm's ability to introduce new products and services. Lee et al. (2019b) found that EO was significantly related to a firm's market share, sales, and profit growth. Similarly, Alqahtani et al. (2022) and Żur (2013) found statistically significant relationships between greater EO, increased sales growth, and higher market shares for the firms studied. Ghalke et al. (2023) found that highly entrepreneurial firms had higher growth rates when compared to non-entrepreneurial

firms. They also reported that an "organization's corporate culture and its EO may complement one another, resulting in improved organizational performance" (Gomes et al., 2022). Overall, research has consistently demonstrated that firms with higher levels of EO have higher returns, survival rates, and growth rates. Furthermore, it has been established that setting clear organisational goals (Wang et al., 2022), using innovative strategies, and possessing an entrepreneurial culture can all lead to improved FP. The study (Voltan, 2017) found social innovation improves FP and also conceptual network model has been developed.

H4 IC mediates the relationship between EO and FP.

3 Methodology

3.1 Data collection and sampling techniques

The current study uses the quantitative data approach was adopted. The data was collected through a structured questionnaire survey online and offline. The study chose family business owners and managers as the study's target population. The target population of the data was collected from Tamilnadu state only. Because in Tamilnadu many family businesses are running successfully. In this study, we get standard responses from the owners and managers of 80%. Furthermore, many family businesses in India have become large multi-national conglomerates with operations in multiple countries. This is partly due to increased competition and the need to remain competitive in the global market. Family businesses in Tamilnadu are also responsible for supporting the local economy by creating jobs and contributing to social causes. Many businesses have established corporate social responsibility (CSR) initiatives that ensure financial and material contributions to local communities. Such measures are important for the growth of family businesses and for the benefit of society. The study used a non-probability purposive sampling technique.

3.2 Measures

The measurement of scale can be adopted from the previous literature. The questionnaire should be an adopted and modified questionnaire circulated with family business owners and managers. EOs have 5 item scale, which does have a five-point Lickert scale. This study adopted the scale (Altinay et al., 2016; Arabeche et al., 2022; Mostafiz et al., 2022). EO has 3 dimensions proactiveness, innovativeness, and risk-taking. The second measurement scale IC mediative variable has five indicators that the five-point Lickert scale can measure which is adopted from this study (Makhloufi et al., 2021; Sulistyo, 2016). Finally FP does have six measurement items which can be measured by five point Lickert scale which is adopted from this study (Chaithanapat et al., 2022; Ciabuschi et al., 2020; Lee et al., 2019b; Lekmat et al., 2018; Pratono and Mahmood, 2015) (1 = strongly disagree, 5 = strongly agree).

3.3 Demographic profile

Table 1 describes the demographic characteristics of respondents. The demographic profile depicts gender, age, educational qualification, role, sector, and firm age. The results show that most of the respondents are male with 90%. Most of the results fell with age group of 40–50 years with 54.9%. Furthermore, the highest qualification is undergraduate with 50.05%. The highest number of respondents collected from family business owners. The highest data was collected from firm age over ten years.

Figure 1 Conceptual model

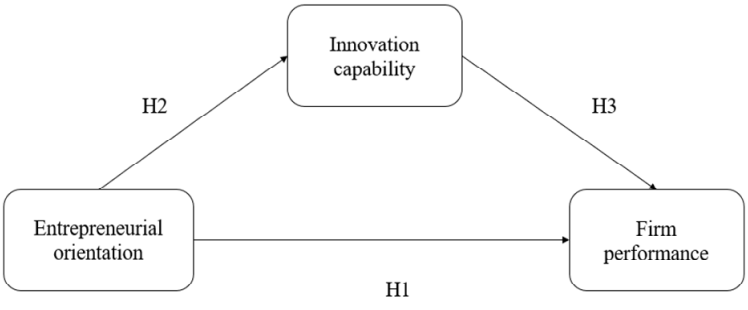


Table 1 Demographic characteristics

Particulars	*Description*	*Frequency*	*Percentage*
Gender			
	Male	91	90.1
	Female	7	9.1
Age			
	20–30 years	5	5.5
	30–40 years	18	19.8
	40–50 years	50	54.9
	50–60 years	13	14.3
	60-above	5	5.5
Educational qualification			
	>High school	29	31.9
	Undergraduate	46	50.5
	Masters	16	17.6
Role			
	Owner	49	53.8
	Manager	31	34.1
	The person who charges of the firm	11	12.1
Sector			
	Manufacturing	22	24.2
	Service	44	48.4
	Whole selling	11	12.1
	Retailing	14	15.4

Table 1 Demographic characteristics (continued)

Particulars	*Description*	*Frequency*	*Percentage*
Firm age			
	>5 years	25	27.5
	5-10 years	32	35.2
	above 10 years	33	36.3
Total		*91*	*100*

The theoretical frame work is presented in Figure 1. The data collected through structured questionnaire. The Google form circulated through social media. The current using simple random sampling techniques were used. The data collected from owners and managers of firm. The overall population of the study is Tamil Nādu.

3.3.1 Common method bias test

We applied a common method bias test variance. The data were subjected to the Harman test to calculate the common method bias (CMB) and the variance inflation factor (VIF) to exclude the possibility of multicollinearity. If the combined factors account for less than half of the variance, then there is no risk of common method bias occurring. In our study all VIF value should be reached their threshold value.

4 Results and discussion

4.1 Data analysis

In addition, the PLS-SEM was more appropriate because the CB-SEM requires certain preconditions to be met before it can be used. These preconditions concern the sample size, the need that the sample be distributed normally, and the requirement that the model be precisely described. In order to transform a theory into a structural equation model (SEM), these conditions require that the right variables be chosen and associated. PLS-SEM might be able to fulfil these requirements. In this circumstance, the piece of software known as Smart PLS 4.0 was utilised.

The analysis is based on two approaches, as recommended and applied in previous research. First, we examine the validity of the measurement model, and then, after presenting the descriptive statistics, we report the results of the tests, thereby evaluating the structural model, with a focus on the mediating effect of IC. First we perform measurement model. In measurement model depicts composite reliability (CR) and convergent validity and average variance extracted (AVE) value.

4.2 Measurement model assessment

First, the measurement model's reliability and validity were assessed. Table 2 shows that test outer loading values were reliable. All of the measured variables' outer loadings range from 0.438 to 0.879. All constructs' AVE values surpassed 0.50 and ranged from 0.629 to 0.681, indicating convergent validity. Latent variable CRs range from 0.89 to 0.928, exceeding exploratory study thresholds.

Table 2 Composite reliability and validity results

Variables	*Items*	*Loadings*	*Cronbach alpha*	*CR (rho_a)*	*CR (rho_c)*	*AVE*
Entrepreneurial orientation	EO1	0.879	0.837	0.866	0.89	0.629
	EO2	0.863				
	EO3	0.852				
	EO4	0.844				
	EO5	0.438				
Innovation capability	IC1	0.818	0.873	0.888	0.907	0.661
	IC2	0.862				
	IC3	0.785				
	IC4	0.755				
	IC5	0.84				
Firm performance	FP1	0.774	0.909	0.945	0.928	0.681
	FP2	0.777				
	FP3	0.834				
	FP4	0.869				
	FP5	0.833				
	FP6	0.859				

Table 3 Discriminant validity Fornell Larcker and HTMT criterion

Fornell locker criterion			
	EO	*FP*	*IC*
EO	*0.793*		
FP	0.423	*0.825*	
IC	0.866	0.231	*0.813*
HTMT			
EO		-	
FP	0.521		-
IC	0.967	0.26	-

Discriminant validity was assessed using (Fornell and Larcker, 1981) method. Table 3 shows that all variables and square roots of AVE (between 0.202 and 0.842) were found. The AVE method of verifying discriminant validity based on the Fornell-Larcker criteria is performed by comparing each variable's AVE to its squared correlation with the other variables. Table 3 shows the values of the AVE square root along the diagonal and relationships between other factors. These correlations are higher in every way, demonstrating discriminant validity (Hair et al., 2017). We also measure the test's discriminant validity using the Heterotrait-Monotrait ratio (HTMT). The HTMT must be less than 0.85. Table 3 shows that the HTML values for every construct are below the threshold levels. Validity, reliability, and discriminant validity were examined in the measurement model. Alpha and CR values above 0.7 improve reliability. Additionally, HTMT was utilised in order to test the discriminant validity. It has been stated that there

is no discriminant validity between the constructs if the HTMT value is less than or equal to 0.85.

4.3 Goodness of fit

The comparative fit index (CFI > 0.9), Tucker-Lewis index (TLI > 0.9), and root mean square error of approximation (RMSEA < 0.08), as recommended by Bagozzi and Yi (1988), were used to evaluate this analysis. Thus, we examined the model's fit and found that the typical conditions (2/d.f. < 3), GFI and NFI > 0.9, and RMSEA < 0.08 were met.

Table 4 Goodness of fit indices

x2	*X2/df*	*RMSEA*	*GFI*	*NFI*
617.137	2.723	0.141	1.871	0.595

4.4 Structural model assessment

In this study we framed three hypotheses. There are three variables were utilised in this model. EO is an independent variable, IC is the mediating variable, and FP is the dependent variable. We use smart PLS 4.0 version for doing data analysis.

In this we performed boot stropping and path analysis. The first hypothesis results shows that ($\beta = 0.891$, and $p = 0.000$), which shows the strongest relationship between EO and FP. The second hypothesis results ($\beta = 0.866$, and $p = 0.000$) are positive with strong impact. EO has strongest impact on IC. In Hypothesis 3 ($\beta = –0.54$, and $p = 0.011$), it partially mediates between IC and FP.

Table 5 Hypothesis results (direct and indirect)

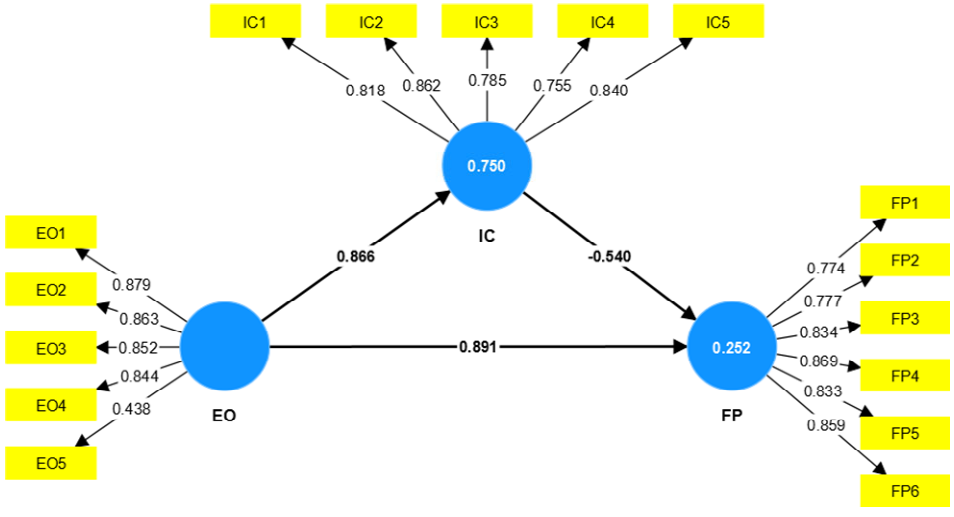
Hypothesis	*Path*	*β-value*	*F2 value*	*Standard deviation*	*T statistics (|O/STDEV|)*	*P values*	*Results*
H1	EO->FP	0.891	0.265	0.113	3.729	0	Supported
H2	EO-> IC	0.866	2.997	0.024	36.269	0	Supported
H3	IC -> FP	–0.54	0.098	0.213	2.533	0.011	Partially supported

Note: *p<0.05, **p<0.01 and ***p<0.001

F2 value depicts that exogenous variables have a good impact on endogenous variables. F^2 values have various effects. In smaller effect ($f^2 = 0.02$), medium effect is ($f^2 = 0.15$), and large effect ($f^2 = 0.35$). According to Table 5 results depicts that H1 effect size is medium and H2 effect size is large, and H3 effect size is small.

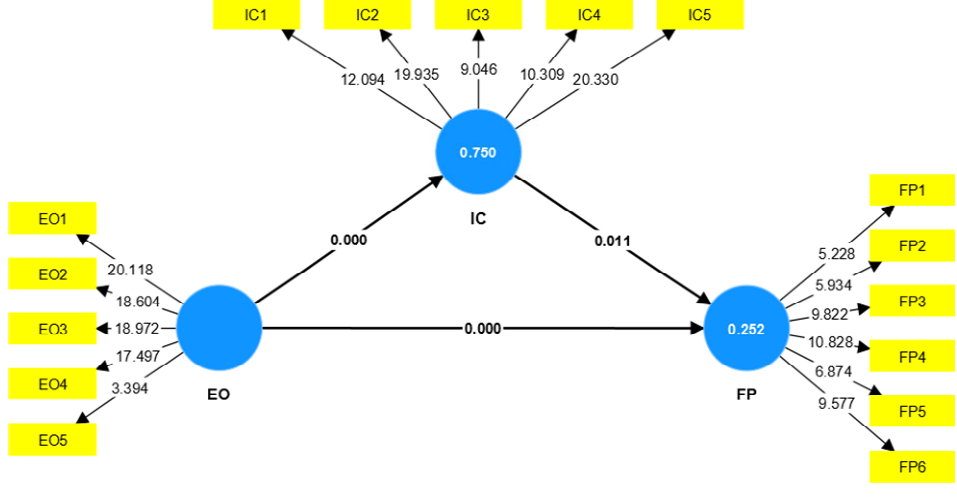
In our study performed measurement model path diagram shows in Figure 2. It can contain the loadings of each indicator given in this path model. As per our path model good fit, all values are reached their threshold value. In this model, we can identify R^2 values. Figure 3 depicts the structural model which contains the t values of each indicator in this model and provides p values.

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



Source: Author

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



Source: Authors estimations

5 Discussion

The study examined IC mediating a positive relationship between EO and FP in a family business context. The results of the study do have several theoretical and managerial contributions to the study. The present study fills the gap in the existing literature, which will be more benefitable to family businesses. The first hypothesis shows that EO is positively related to FP. Many authors (Basco et al., 2020) confirmed that its results do

have a positive impact. In addition, EO have positive effect on SME performance, it does have social media adoption plays a mediating effect and ICs is a moderating effect on increasing the SME performance (Fan et al., 2021). Further more EO and innovation can have a positive impact on family SMEs in the perspective of board of directors (Arzubiaga et al., 2018). Additionally, more EO can positively relate to FP in agribusiness (Kruja, 2020). In addition, Elidjen et al. (2022), Gupta and Batra (2016) and Gupta and Gupta (2015) EO significantly affects FP, supporting H1. Several authors confirmed that EO is the main important strategy to increase the firm growth (Khedhaouria et al., 2020; Shafique and Saeed, 2020).

In second hypothesis depicts EO positive and significant impact on ICs. The study investigated that international EO can positively influence innovative performance with theediating effect of product and process innovation and open innovation (Freixanet et al., 2021; Mostafiz et al., 2022). However, study (Nursal et al., 2022; Sarfraz et al., 2022) found entrepreneurial innovation is mediating effect in the relationship of consumer purchase behaviour and green environment in hotel industry. Author found that supporting of innovation leads to organisational success (Ciabuschi et al., 2020; Weerawardena and Sullivan-Mort, 2001). Several authors examined there is positive impact of EO and IC (Al-Shami et al., 2022; Fang et al., 2022; Khan et al., 2021; Makhloufi et al., 2021; Niwash et al., 2022). The study added importance of family businesses with different industry perspective which can leads to increase the FP (Salloum et al., 2015, 2016, 2019).

In third hypothesis provide IC is partial mediating effect of FP. This (Rajapathirana and Hui, 2018) study investigate the relationship between innovation type and IC to increase the firm's performance. Knowledge management also plays a prominent role to increase organisational performance through IC view (Migdadi, 2022). In addition to Taleb et al. (2023), entrepreneurial leadership and IC can leads to entrepreneurial success. IC can lead to get high competitive advantage and EO plays a moderating effect to increase the FP (Ferreira et al., 2020). In every sector IC can create good impact to develop firm success (Luiz dos Santos and Vieira Marinho, 2018). In hotel industry innovation is the best strategy to improve hotel performance (Wiji Prasetiyo and Pertiwi, 2021). This study supported this hypothesis, but the author found that marketing and environmental turbulences mod moderate the firm's growth (Beigi et al., n.d.; Sun et al., n.d.).

6 Conclusions and implications

This study demonstrated a relationship between EO, IC, and FP. Focus on IC advance in the literature, we contributed to showing the relationship between EO and FP, and IC can improve FP if increase of innovation company's performance should increase. Our findings are an important contribution to this study, first EO is positively influences the FP. Second EO is positively associated with IC. Third IC positively impact on FP. Thus, we conclude that IC can improve the firm's growth techniques.

The theoretical implication of this research is that EO positively influences a firm's IC and ultimately on its performance. This suggests that organisations should focus on developing and maintaining an EO to increase their IC and improve their performance. Such research can help organisations make informed decisions about cultivating an EO, leveraging the potential benefits it may bring.

Research has demonstrated that EO is associated with organisational performance and has become an important management research focus. IC, such as the ability to develop new products, services, and processes, is also essential to FP. Studies suggest that firms with higher EO and greater ICs tend to outperform firms with lower EO and weaker ICs. An important area of managerial implication, stemming from these findings, involves developing strategies to facilitate improvements in EO and IC in order to improve FP. Through strategic planning and management efforts, organisations have the potential to enhance their EO and ICs to gain a competitive advantage in the marketplace. Managers also need to focus on outlining goals and objectives from the framework of their organisational strategy and assessing the alignment of their initiatives to their overarching strategy. Managers must develop a comprehensive understanding of the factors associated with EO and IC to implement policies that emphasise these factors effectively.

7 Limitations and future direction

The future direction of an organisation largely stems from its vision and strategy. Organisations should regularly analyse their performance, adjust their goals, and reassess their progress. Organisations should have a clear plan for how they will innovate, compete, and manage their operations in the long term. In doing so, organisations will create a sustainable competitive advantage. The current study is limited to family business firms; future studies may concentrate on some other MSMEs sectors and the Omni channel retail industry. The study was limited with the Indian context and especially in Tamil Nadu state. Only further study may focus on North India and comparative analysis of different family businesses. The current study results are limited with family businesses with a limited sample size. Further study may concentrate on testing and validate the model with high sample size. In addition, IC playing as a mediating role in this study. Further study may see IC as a moderating variable. Industry 4.0 and gamification should be a meditator to test and validate the model in a developing country perspective. Future studies may focus on applying fuzzy set and TISM model and MIMAC analysis. The future study may focus on female entrepreneurship success in emerging economy and how female entrepreneurship boost innovation. In addition to Mariani et al. (2023), future study may concentrate on understanding the impact of gender diversity on entrepreneurial innovation and venture growth but also focus on entrepreneurial networks on the success of female-owned business in developing country perspective. Furthermore, researchers may focus on comparing the venture exit strategies of male and female-owned enterprises and role of mentors in fostering a successful female entrepreneurial ecosystem.

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