An empirical evaluation of entrepreneurial orientation in the context of innovation in new ventures

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Abstract: Entrepreneurial orientation as a factor in innovation and entrepreneurship research has gained interest in recent years. This paper attempts to explore and evaluate the dimensions of entrepreneurial orientation in the context of Indian new ventures. Drawing from the existing measurement scale of entrepreneurial orientation, the concept is discussed and addressed in three dimensions: risk-taking ability, innovativeness, and proactiveness. Focusing on strategic innovation in new ventures, this paper also highlights the conceptual relationships among entrepreneurial orientation, organisational innovation, technological innovation, and product innovation. With an aim to understand and assess the dimensions of entrepreneurial orientation in the context of Indian new ventures, the paper presents an empirical evaluation of the concept of entrepreneurial orientation, followed by a discussion of the future research agenda.

Keywords: entrepreneurial orientation; strategic innovation; entrepreneurship; new ventures; India.

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1 Introduction

Entrepreneurial firms broadly differ from traditional firms in management styles (Lechner and Dowling, 2003). From a microscopic view, major distinguishable traits in entrepreneurial firms are proactive decision-making ability (Lowe and Ziedonis, 2006), innovation skills (Zheng et al., 2021), and risk-taking ability (Dai et al., 2014). These dimensions are clubbed together and viewed as strategic behaviours in a competitive environment. Strategically, entrepreneurial orientation impacts organisational functions and innovative business activities, leading to competitive advantage (Anderson et al., 2009). Entrepreneurial orientation as an organisational phenomenon is also considered fundamental for competitiveness in entrepreneurial firms (Lee and Peterson, 2000). Thus, entrepreneurial orientation in strategic management research is portrayed as an option to perform well in an intensely competitive environment (Jin and Cho, 2018).

The concept and definition of entrepreneurial orientation are vague in nature as it is generalised through theoretical and empirical studies (Randerson, 2016). Though a significant number of studies on entrepreneurial orientation are present in the literature, there is a gap in terms of evaluation-based studies that hold the potential to reconceptualise the concept of entrepreneurial orientation in different economies (Martens et al., 2016; Wales et al., 2013). For instance, there may be a possibility that out of the three dimensions of entrepreneurial orientation, only select dimensions may exist in entrepreneurial firms belonging to different emerging economies. Since entrepreneurial orientation is seen as a fundamental phenomenon for attaining competitive advantage (Anderson et al., 2009), it is important to understand the components of entrepreneurial orientation which exist in firms operating in an entrepreneurial setup (Lomberg et al., 2017). In this context, the paper attempts to explore and validate the dimensions of entrepreneurial orientation in the Indian context.

This study examines the existing measurement scales of entrepreneurial orientation available in the literature. Though the scales are well-established and validated in multiple empirical studies, the dimensions of entrepreneurial orientation are re-examined in the context of Indian new ventures. Evaluating entrepreneurial orientation dimensions aims to identify the significantly contributing components of entrepreneurial orientation at the firm level. With the examination of entrepreneurial orientation components, significant variables associated with the appropriate components of entrepreneurial orientation are identified. The study further discusses entrepreneurial orientation elements in Indian new ventures. Following the evaluation of entrepreneurial orientation dimensions, some significant logic-based relationships and theory-based reasoning are argued to enhance the conceptualisation of entrepreneurial orientation.

2 Entrepreneurial orientation in the context of innovation

The inception of the concept began with the term ‘strategic posture’ (Covin and Slevin, 1989). Strategic posture is a broader term used to define the firm’s competitive orientation (Mithas et al., 2013). It is also correlated with the notion of entrepreneurial-conservation orientation (Thoumrungroje and Tansuhaj, 2005). Entrepreneurial-conservation orientation is centred on the roles of the top-management team (Van Doorn et al., 2017). The managers and appropriate leaders are responsible for demonstrating the entrepreneurial-conservation inclination. The orientation encourages

managers to take risks intended for business growth (Anderson et al., 2015). Similarly, it favours change activities within the firm to attain a competitive advantage (Yousaf and Majid, 2018). In this sense, strategic posture refers to the firm's competitive orientation aimed at competing effectively with other firms (Carpenter and Fredrickson, 2001).

In the context of entrepreneurial firms in a competitive environment, strategic posture is beneficial to new ventures (Covin and Slevin, 1990). In an intensely competitive environment, new ventures may observe only limited exploration opportunities (Zahra and Bogner, 2000). Considering competitive orientation, new ventures will be beneficial if the firm seeks opportunities proactively (Su et al., 2011). In order to exploit the identified opportunities, the firms should aggressively innovate and take calculated risks (Brockman et al., 2012). Thus, the firms are likely to gain a competitive advantage with the combative traits exhibited by strategic posture (Anderson et al., 2009; Mithas et al., 2013). At the same time, it may also be noted that strategic posture or competitive orientation may have a negative or very less positive impact on firm performance (Daily and Thompson, 1994). There are a couple of notions behind this relationship. First, the entrepreneurial-conservation orientation exhibits risk-taking ability, which may temporarily hamper or stall the firm's performance (Chen and Ma, 2011). Second, the orientation mentioned is a strategic proposition; the desired impact will be in the noticeable spectrum after quite a period (Covin and Slevin, 1990). This indicates that the orientation centred on entrepreneurial thinking is well suited for long-range planning and futuristic impacts (Sirén et al., 2017).

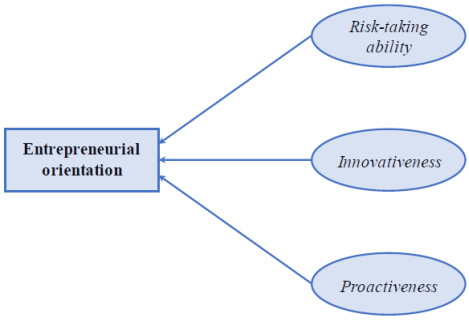
Entrepreneurial orientation has attracted significant attention from academic researchers in the domain of strategic management (Anderson et al., 2015). Over the past decade, the number of studies on entrepreneurial orientation has been increasing, which has resulted in establishing a solid foundation for the concept (Wales et al., 2021). Predominantly, the concept of entrepreneurial orientation has been associated with the domain of strategic management (Anderson et al., 2009). In this perspective, entrepreneurial orientation is linked to creativity (Khedhaouria et al., 2015), risk-taking behaviour (Marshall and Ojiako, 2015), proactive decision making (Shepherd et al., 2015), innovative methods and business practices (Burgelman and Hitt, 2007). Multiple dimensions attached to entrepreneurial orientation reflect that entrepreneurial orientation is a process-oriented phenomenon (Covin et al., 2006). That is why it is argued that firms are entrepreneurial if they exhibit distinguishable traits in working style and management philosophies (Bendixen and Burger, 1998). From the viewpoint of innovation, entrepreneurial firms focus on product innovation. Engaging in product innovation reflects the production of new products (Berends et al., 2014). In order to develop new products, the firm undertakes risky initiatives and tries to gain the first-mover advantage (Zhao et al., 2012). Similar to the trade-off between risk and reward, there is also a possibility of adverse outcomes (Norton and Moore, 2006). Thus, entrepreneurial firms tend to pursue calculated risky ventures.

The firms strive to beat the competition in the competitive environment through continuous innovation (Cai et al., 2017). At the same time, it is observed that the mere development of new products may not lead to a competitive advantage (Salavou et al., 2004). Since innovation in an entrepreneurial journey of a firm is a strategic process, the factor of time plays an important role. Launching new products into the market at the right time fetches the competitive edge (Katila et al., 2012). Further in this direction, the firms tend to be proactive in innovation to capture maximum value from initiatives taken

(Obloj et al., 2010). Thus, entrepreneurial firms focus on paced-up innovation to develop new products early.

The arguments from the literature on entrepreneurial orientation conclude with three dimensions: risk-taking ability, innovativeness, and proactiveness (Brettel et al., 2015; Hughes and Morgan, 2007; Kreiser et al., 2013). Figure 1 illustrates the pictorial representation of entrepreneurial orientation in terms of associated dimensions conceived from the literature. In the context of innovation, the combination of these dimensions revolves around the concept of redefining business (Kreiser et al., 2013). In this sense, entrepreneurial orientation significantly influences the firm to innovate and produce unique market offerings (Covin et al., 2006). Similarly, the aspect of risk-taking helps explore new opportunities by introducing new products or services catered to solve customer problems (Hsieh et al., 2007; Sharma et al., 2021). Entrepreneurial orientation also influences the firm to be relatively more proactive than the competitors (Madsen, 2007).

Figure 1 Dimensions of entrepreneurial orientation (see online version for colours)



Focusing on the immediate impact of entrepreneurial orientation, several researchers have observed the conceptual relationship between entrepreneurial orientation and organisational operations (Wales et al., 2011). It is also observed that entrepreneurially oriented firms pass the behaviour traits to the successive organisational functions. Thus, it shows that the impact of entrepreneurial orientation is influential at all organisational levels (Rezaei and Ortt, 2018). Since entrepreneurial orientation is driven by behaviour, it is inclined to be positioned appropriately in the leadership zone (Van Doorn et al., 2017). The leadership radius is not confined to entrepreneurs or founders if entrepreneurial orientation is concerned. In most entrepreneurial firms, it is common to witness entrepreneurial orientation being driven by entrepreneurial leaders or top management teams to the subordinate forces (Wales et al., 2020). Although initiations in the front of entrepreneurial orientation are taken at leadership levels, the degree of entrepreneurial orientation increases with the level of diffusion into the organisation (Wales et al., 2011). Thus, it becomes the prime function of leadership to govern the organisational behaviour originated through entrepreneurial orientation (Keil et al., 2017). Since it is a well-established notion that entrepreneurial orientation is a fundamental driver for innovation, the concept is highly correlated to the entrepreneurial and innovative behaviour exhibited by the organisation.

3 Theoretical underpinnings

In literature, the concept of entrepreneurial orientation has been discussed in the context of various established strategic management theories such as resource-based view, dynamic capabilities, organisational change, institutional theory, network theory, organisational ecology, contingency theory, institutional logics, and agency theory (Slevin and Terjesen, 2011). Since the concept is concentrated on new ventures and entrepreneurship, the theory of dominant entrepreneurial logic and subjectivist theory of entrepreneurship makes a relevant contribution to the concept (Covin and Lumpkin, 2011). Theoretically, understanding the concept of entrepreneurial orientation is essential to extend the research in different forms. This section discusses excerpts on entrepreneurial orientation concerning prior mentioned theories. The relevant and critical takeaways from the theories are discussed considering the collective view of strategic management, entrepreneurship, and innovation domain.

From the theoretical viewpoint of organisational theory, contingency theory is rooted in the concept of the organisation of business units (Shepard and Hougland, 1978). The theory correlates the firm performance and the way of organisation of the firm by integrating the contextual factors (Volberda et al., 2012). With different combinations of factors in place, the firm aims to produce better performance (Priem, 1994). In simple terms, the theory also suggests that good fit comprising contextual factors in the appropriate place will enhance productivity leading to better firm performance (Donaldson, 1987). The contextual factors in the context of contingency theory refer to the set of organisational structures and practices followed in a firm (Tosi and Slocum, 1984). The processes and activities existing in an organisation are designed and followed in view of both the internal and external environment (Luthans and Stewart, 1977). Thus, as per contingency theory, the processes and structures are aligned with the strategic vision of the firm in order to improve the firm performance (Niemand et al., 2021). This alignment process is viewed as achieving a fit, which is dynamic and continuous in nature, especially in an uncertain and volatile environment (McAdam et al., 2019). In the context of entrepreneurial research, there are multiple studies on contingency theory (Chavez et al., 2017; Gupta and Batra, 2016; Niemand et al., 2021). Reflections on examining contingency fit in small businesses dominate the concerned domain (Gupta and Batra, 2016). Since contingency theory discusses the relationship between the environment, structure, and performance of a firm, the concept of entrepreneurial orientation is viewed as a contextual factor affecting the fit, which eventually impacts the firm performance. In this specific research direction, there are few studies examining the fit by conceptualising the relationship between entrepreneurial orientation and firm performance (Al-Surmi et al., 2020; Csaszar and Ostler, 2020). On the other hand, few studies consider that structural routines and organisational processes facilitate entrepreneurial orientation in an organisation (Fredericks, 2005; Morton and Hu, 2008).

The theory of resource-based view is widely discussed in the larger domain of management literature. The theoretical framework emphasises gaining or maintaining a competitive advantage by effectively utilising organisational resources (Barney, 1986). Parallel to the notion of a resource-based view, it is observed that resources as the source of competitive advantage provide a static view (Priem and Butler, 2001). Thus, it is conceived that competencies are developed or enhanced because of the changing dynamics of the environment (Bowman and Ambrosini, 2003). Hence, the concept of

dynamic capability theory emerged to understand the internal contextual factors of a firm (Alonso et al., 2018; Bindra et al., 2020). In this direction, several researchers have taken this as a theoretical grounding to understand the impact of a dynamic environment on growth (Gupta and Gupta, 2019; Jiang et al., 2018a).

Resource-based view is limited within the boundaries of a firm's internal structure and enacting forces. On the other hand, capabilities include resources and competencies to attain competitive advantage (Chaharbaghi and Lynch, 1999). Resources are primarily categorised into tangible and intangible resources. Here, in the context of entrepreneurial orientation, it is an intangible resource. As per the theory, it is widely conceived that firms grow and succeed with the help of valuable resources and superior capabilities (Lin and Wu, 2014). Regarding the capabilities, one of the major reasons for the growth is the coordination of activities and efficient use of resources (Kunc and Morecroft, 2010). Capabilities reflect the functional aspect of the firm. At the same time, resources refer to the inputs for the various functional activities (Gruber et al., 2010). With the coupling of the resource-based view and capability theory, entrepreneurial orientation is viewed as both firm resource and capability (Eshima and Anderson, 2017). Considering the role of the top management team, it is also viewed as a dynamic capability essential for competitiveness (Ulrich and Lake, 1991). Similarly, few studies suggest that competitive resources and superior capabilities enhance the entrepreneurial orientation and relationship with subsequent organisational actions (Liao et al., 2009; Tan and Cross, 2012).

Apart from some major theories of strategic management, there are several other theories linked with the concept of entrepreneurial orientation, such as organisational change theory (Yousaf and Majid, 2018), agency theory (Bauweraerts and Colot, 2017), network theory (Jiang et al., 2018b), and contextual notions of entrepreneurship (Dess and Lumpkin, 2005). In the literature on organisational change, entrepreneurial orientation is observed as the major driver factor of change (Wales et al., 2011). One of the reasons discussed refers to the component of innovativeness, which initiates the change activities within the firm. In the context of agency theory, it is seen that factors like agency costs, the composition of the board, and leadership philosophies impact entrepreneurial orientation (Bauweraerts and Colot, 2017). Regarding network theory, the focus is on the flow of resources critical for organisational growth. In this aspect, it is conceptually seen that firms with networks may improve resource flow, leading to entrepreneurial orientation effectiveness (Jiang et al., 2018b). As previously mentioned, entrepreneurial orientation is based on competitiveness and entrepreneurial thinking. From this notion, it is believed that this is concerned with the role of the entrepreneurial leader in fostering the process of entrepreneurship. With the subjectivist theory of entrepreneurship, in literature, managerial roles are explored in the context of entrepreneurial orientation (Anderson et al., 2015). It is theorised that both knowledge (Dhir et al., 2020, 2021) and managerial experience are crucial for the effectiveness of entrepreneurial orientation (Wiklund and Shepherd, 2003).

4 Research methodology

This study examines and validates the elements of entrepreneurial orientation in the context of new ventures. For this purpose, new ventures are targeted that are operating in India. In order to collect the required data, a survey-based approach was employed. The

firm-level data was collected through a questionnaire. The questionnaire was designed and circulated in the online medium as reaching out physically to respondents was difficult during the COVID-19 pandemic period. The questionnaire includes both open and close-ended questions. Open-ended questions were intended to gather general information about the firm and respondents.

The questionnaire items for entrepreneurial orientation were taken from a scale developed by Hughes and Morgan (2007). There are nine indicators for entrepreneurial orientation. According to the scale, the indicators are classified into three components of entrepreneurial orientation. A specific set of three indicators corresponds to each component of entrepreneurial orientation. The questionnaire, composed of items related to entrepreneurial orientation, was tested and evaluated by a group consisting of startup founders/co-founders, professionals from the entrepreneurial ecosystem and researchers in the field of entrepreneurship. The questionnaire was administered to target respondents after obtaining satisfactory outcomes from the evaluation and testing of the questionnaire. The respondents were asked to make the appropriate choice on the five-point Likert scale for each item regarding actual responses. The linguistic terms on the extreme ends of the Likert scale are 'strongly disagree' and 'strongly agree'. For example, a statement from the questionnaire is 'people in your organisation are encouraged to take calculated risks with new ideas'; the response to this statement was asked on a Likert scale (strongly disagree to strongly agree). The designed questionnaire was used to collect data for both exploratory and confirmatory factor analysis. However, the items eliminated during the process of exploratory factor analysis were not considered while exercising confirmatory factor analysis for validating the elements of entrepreneurial orientation.

Since the study is confined to the context of new ventures registered and operating in India, the questionnaire administration is targeted at top-level management employees working in a startup. The inclusion criteria for the sample population include firm age and national affiliation. With these criteria, Indian startups with fewer than ten years were considered the target respondents. Response from a single startup organisation was limited to one; thus, the unit of analysis in this study is firm. Primarily, the received responses are from startups situated in various Indian cities. A major portion of the number of responses is from the Delhi, India, as the sampling technique incorporated in this study is convenience sampling.

The process of exploratory factor analysis was practised to identify the dimension of entrepreneurial orientation, and then confirmatory factor analysis was exercised to analyse further and validate the identified elements. For exploratory analysis, IBM SPSS 26 software package was used. The varimax rotation technique was used to obtain factor loadings for structuring the factors regarding dimension reduction. Following exploratory analysis, confirmatory factor analysis is done to validate the identified elements empirically. In confirmatory factor analysis, the conceptualisation of the model is based on the output of exploratory factor analysis. In comparison to exploratory factor analysis, confirmatory factor analysis is done with a larger sample. The software tool used to perform confirmatory factor analysis was IBM SPSS AMOS version 26.

5 Results

The factor analysis, especially exploratory factor analysis, helped identify critical components of entrepreneurial orientation perceived by Indian new ventures. Further, the identified dimensions are empirically validated through confirmatory factor analysis. Regarding biases in responses, the questionnaire did not include contextual information and the inclination of instruments. Thus, bias in responses was eliminated. With the approach of exploratory factor analysis and confirmatory factor analysis, the critical elements of entrepreneurial orientation are empirically validated in the context of new ventures in India. Therefore, the findings of this study reflect the perception of entrepreneurial orientation among Indian new ventures.

5.1 Findings of exploratory factor analysis

In this study, exploratory factor analysis is exercised as a foundational step to examine the indicators of entrepreneurial orientation. Additionally, the purpose of exploratory factor analysis is to group the indicators of entrepreneurial orientation into meaningful contextual components. For this purpose, exploratory factor analysis was performed using principal component analysis as the factor extraction method, and the rotation technique incorporated was varimax rotation. Since exploratory factor analysis is an iterative process for factor extraction, the items with factor loading less than 0.30 were suppressed. Similarly, the items exhibiting cross-loadings were eliminated to obtain an optimistic rotated component matrix. Regarding the communalities of scale items, the amount of variance in each item was assessed to ensure an acceptable level of interpretive explanation. The communalities of the majority of items were above 0.5 except for one item, which was removed successively.

The overall significance of the correlation matrix is reflected through the index of Bartlett's test of sphericity. This provides a measure of statistical probability that the correlation matrix has significant correlations among sets of indicator items. Regarding the suitability for factor analysis, the results were significant in terms of Chi-square value (χ^2 = 575.378), degree of freedom (df = 21), and p-value less than 0.001 (p = 0.000). Another measure to determine the sampling adequacy is Kaiser-Meyer-Olkin (KMO) value which ranges from 0 to 1. The KMO value above 0.6 is considered an acceptable value (Hair et al., 2010). Here, the reported value of KMO is 0.826, which indicates that a good-sized sample is considered for the exploratory factor analysis.

In the process of dimension reduction, the items with an eigenvalue greater than one are extracted into multiple components. The factor loading of each item was observed to group the items into respective components perfectly. Thus, in the rotated component matrix, items with a factor loading above 0.5 were retained. The reliability analysis for the considered items computed 0.857 as the Cronbach's alpha value, which is greater than the recommended value (> 0.7) (Nunnally, 1978). In the final iteration, factor analysis produced two components with 76.703% of cumulative variance. The two factors were identified through exploratory factor analysis. The first factor includes four items, and the second factor consists of three items. The first factor predominantly refers to risk-taking ability coupled with the notion of innovation. The second factor with three items reflects the concept of innovativeness and proactiveness. The factor loading obtained from exploratory factor analysis is shown in Table 1.

Table 1 Output of exploratory factor analysis

Items	*Statement*	*Factor 1*	*Factor 2*
EO1	The term 'risk-taker' is considered a positive attribute for people in your organisation.	*0.873*	0.133
EO2	People in your organisation are encouraged to take calculated risks with new ideas.	*0.902*	0.126
EO3	Your organisation emphasises both exploration and experimentation for opportunities.	*0.892*	0.226
EO4	Your organisation actively introduces improvements and innovations in your business.	*0.866*	0.225
EO5	Your organisation is creative in its methods of operation.	0.130	*0.850*
EO6	Your organisation seeks out new ways to do things.	0.099	*0.874*
EO7	Your organisation excels at identifying opportunities.	0.280	*0.721*
EO8	Your organisation always tries to take the initiative in every situation.*		
EO9	Your organisation initiates actions to which other organisations respond.*		

Notes: * – Deleted items. Italics – Corresponding factor loadings.

5.2 Findings of confirmatory factor analysis

After exploratory factor analysis, the successive step carried out is the empirical validation of components identified for entrepreneurial orientation. The empirical validation of entrepreneurial orientation through confirmatory factor analysis is conducted using the maximum likelihood estimation procedure. While evaluating the measurement model, one item corresponding to the second factor reported low factor loading (below 0.6). Thus, the item was removed from the model to improve the reliability parameters (Kline, 2014). In order to examine the reliability of constructs, the parameters Cronbach's alpha and composite reliability (CR) were assessed. The analysis reported Cronbach's alpha greater than 0.7 for both the factors, and similarly, CR was also above the recommended value of 0.7 (Bacon et al., 1995). The convergent validity is also accepted as the factor loading of items corresponding to respective constructs is greater than 0.6, and the average variance extracted is above 0.5 (Fornell and Larcker, 1981).

Regarding model fit indices, the comparative fit index (CFI), the goodness of fit index (GFI), adjusted goodness of fit index (AGFI), root mean square error of approximation (RMSEA), normed fit index (NFI), and Tucker-Lewis Index (TLI) are considered. The confirmatory factor analysis reported Chi-square/degree of freedom < 3.0 (Marsh and Hocevar, 1985), GFI > 0.90 (Joreskog and Sorbom, 1984), AGFI > 0.80 (Joreskog and Sorbom, 1982), NFI > 0.90 (Bollen, 1989), TLI > 0.90 (Bentler and Bonett, 1980), and SRMR < 0.08 (Hu and Bentler, 1999). The output generated with relevant results of confirmatory factor analysis is summarised in Table 2.

Table 2 Summarised outputs of confirmatory factor analysis

Factor loadings			*Reliability and validity*		*Discriminant validity matrix*		
Items	*Factor (Dimensions)*	*Loading*	*AVE*	*CR*		*Factor 1*	*Factor 2*
EO1	Entrepreneurial behaviour (Factor 1)	0.913	0.812	0.945	Factor 1	0.901	0.341
EO2		0.923					
EO3		0.927					
EO4		0.838					
EO5	Innovative action (Factor 2)	0.899	0.753	0.859	Factor 2	0.341	0.868
EO6		0.835					

Note: Model fit indices: CMIN/DF: 2.286, P-value: 0.025, CFI: 0.994, GFI: 0.983, AGFI: 0.949, TLI: 0.987, NFI: 0.989, RMSEA: 0.065, SRMR: 0.033.

6 Conclusions, discussion and managerial implications

Entrepreneurial orientation is an organisational character displayed at managerial levels, reflecting select entrepreneurial traits such as risk-taking ability, innovativeness, and proactiveness. The dimensions of entrepreneurial orientation take different shapes in different economies concerning the operating environment. In this specific perspective, the study examined and validated the critical dimensions of entrepreneurial orientation in the context of Indian new ventures. From the adopted scale, it was preconceived that there are three established constructs of entrepreneurial orientation. However, it is also realised that the contextual meaning of constructs may carry surrogate definitions in different contexts. Therefore, the analysis carried out through exploratory and confirmatory factor analysis assisted in understanding the concept of entrepreneurial orientation in the Indian context. The study also guided the interpretation of the perception of Indian new ventures regarding entrepreneurial orientation.

The preliminary analysis conducted through exploratory factor analysis yielded two factors from the set of nine items. The first factor predominantly holds all the three indicator items attributing to risk-taking ability. Apart from risk-taking ability, one item indicating innovative thinking was also grouped in the first factor along with the items of risk-taking ability. In a way, the factor broadly indicates the intent oriented items. On the other hand, the second factor includes three items. Referring to the adopted scale, the items included in the second factor attribute both innovativeness and proactiveness. Specifically, the analysis grouped two items from innovativeness and one from proactiveness to form the factor. By revisiting the statement of respective items, it is observed that the items corresponding to the second factor reflect the notion of entrepreneurial actions based on innovativeness and proactiveness. While performing exploratory factor analysis, the other two items of proactiveness reported either weaker factor loading or weaker cross-loadings, which resulted in the dropping of those items.

The soft signals from the exploratory factor analysis indicate that the contribution of proactiveness to entrepreneurial orientation is minimal in the study's context. One of the rationales behind this is the pursuance of defender and imitation strategy. The majority of small firms and new ventures in India prefer to wait and watch the market environment, which pushes the firm into a defensive stance that lacks proactiveness (Chatterjee et al.,

2022; Javalgi and Todd, 2011). Proactiveness in entrepreneurial actions is crucial, especially in an intense market environment. It is difficult for new ventures to gain a first-mover advantage without proactive behaviour. Although the construct representing proactiveness is not established through data-enabled factor analysis, one item of proactiveness is clubbed with innovativeness. The item placed in the second factor reflects the idea of identifying opportunities. This indicates that the Indian new firms are market-oriented. Since the market is an immediate impact factor for firm performance (Rajan et al., 2021a), Indian new firms are oriented towards market opportunities. In this sense, it is understood that Indian firms prefer to grab opportunities at the earliest than others to gain maximum advantage.

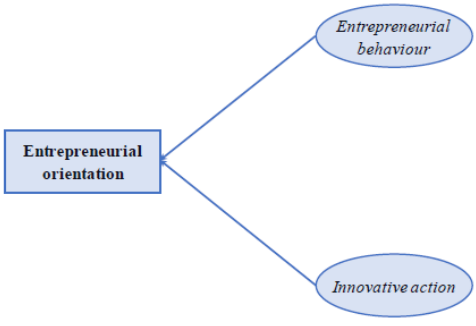
Following exploratory factor analysis, the confirmatory factor analysis validated the factorisation done in the previous step. Though analysis showed a good fit of the model, one of the items in the second factor reported low factor loading. The item with low factor loading was dropped to improve the reliability parameter. The dropped item belongs to the dimension of proactiveness. Since confirmatory factor analysis is done with a larger sample, it strengthens the factors conceptualised in exploratory analysis. The dropping of the lone proactiveness item from the second factor indicates that it exhibits actions based on innovative thinking. Since the presence of proactiveness is low in Indian new ventures, it could be interpreted that the concept and role of proactiveness in entrepreneurial orientation is minimal when looked at broad perspective. Though the dimension of proactiveness looks insignificant in the Indian context, it cannot be ignored as the items are crucial when analysed from a microscopic view.

The established concept of entrepreneurial orientation demonstrates three dimensions. Following the conceptual structure, the study aimed to evaluate the dimensions of entrepreneurial orientation in the Indian context. Keeping the core concept intact, the study produced two components instead of three, as perceived by Indian new ventures. In the process of factor analysis, the items reflecting proactiveness at the firm level were dropped due to poor factor loading and cross-loading issues. Leaving proactiveness, the factorisation process produced two factors. By scrutinising the factor items, it was observed that the factors are divided based on behaviour and actions. Generally, orientations are reflected by the behaviours and actions exhibited by firms. In this order, the classification of factors displays two important aspects of any orientation. By reading the item statements included in respective factors, it is observed that the items in the first factor reflect entrepreneurial behaviour and items included in the second factor reflect actions driven by innovative thinking. Thus, the dimensions of entrepreneurial orientation are classified into entrepreneurial behaviour and innovative actions, as shown in Figure 2.

Entrepreneurial behaviour widely reflects the intention driven by either the entrepreneur's cognition or the motivation to generate economic value (Al-Abdallah et al., 2021; Sharahiley, 2020). Here, entrepreneurial behaviour as a dimension of entrepreneurial orientation showcases the intention to take appropriate risks to exploit opportunities. The intentions and motivations driven by an entrepreneurial mindset are diffused into an organisation through strategic leadership and governance (Birasnav et al., 2019; Sushil, 2014). As organisations are more oriented towards entrepreneurship, the role of innovation and allied activities have taken a parallel route considering the rapidly changing business environment (Malaviya and Wadhwa, 2005). As a result, actions inclined towards innovativeness and creativity is considered critical for entrepreneurship development. More specifically, the significance of innovation is increasing in the

context of strategic entrepreneurship (Katsonis et al., 2018). The emergence of entrepreneurial orientation in the context of the entrepreneurial mindset and translated innovative actions is changing the dynamics of the business environment as continuous innovations are required for competitive growth (Kountios et al., 2018). Although entrepreneurial orientation in an organisation results in better firm performance through innovation, the impact is not immediate on the business performance. The entrepreneurial orientation is translated into organisational innovation, including major functional innovations (Dinesh and Sushil, 2019, 2021). The functional level innovations are responsible for innovation outcomes in terms of new product development and technological innovations (Rajan et al., 2020a, 2020b, 2021b). Thus, organisational innovations are guided by an entrepreneurial orientation supported by entrepreneurial behaviour and innovative actions. In this context, entrepreneurial orientation is the input for organisation innovation, leading to firm performance.

Figure 2 Conceptualised components of entrepreneurial orientation (see online version for colours)



This study has provided a comprehensive overview of the dimensions of entrepreneurial orientation. In new ventures, entrepreneurial orientation is a pervasive concept that influences major functional areas of an organisation. In this context, this study provides an action-oriented and behavioural dimension of entrepreneurial orientation. The two dimensions of entrepreneurial orientation mentioned in this study correspond to entrepreneurial behaviour and innovative actions. Entrepreneurial orientation in an organisational setting is crucial for implementing innovative activities in respective functional areas. In order to pursue innovative activities within organisations, managers and top management teams should explicitly exhibit entrepreneur orientation. Significantly, entrepreneurial orientation strengthens the innovative practices in new ventures, resulting in improved firm performance.

The study's scope is limited to new ventures in India. The components extracted and observed in this study could be extended to different economies. The broad components of entrepreneurial orientations could be interpreted in diverse organisational settings. Future researchers can make relevant contributions in similar extended areas such as corporate and strategic entrepreneurship. This study discusses a few promising contextual relationships between entrepreneurial orientation and functional areas, which could be taken up for future research in this direction. From a methodological viewpoint, the study has incorporated a cross-sectional approach to evaluate the dimensions of entrepreneurial

orientation in new ventures. Future researchers could employ longitudinal approaches to examine the longitudinal impact of entrepreneurial orientation on firm performance.

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