Article:
Basu, S, Munjal, S orcid.org/0000-0002-8713-687X, Budhwar, P et al. (1 more author) (2022) Entrepreneurial Adaptation in Emerging Markets: Strategic Entrepreneurial Choices, Adaptive Capabilities and Firm Performance. British Journal of Management, 33 (4). pp. 1864-1886. ISSN 1045-3172

https://doi.org/10.1111/1467-8551.12572

Entrepreneurial Adaptation in Emerging Markets: Strategic Entrepreneurial Choices, Adaptive Capabilities and Firm Performance

Shubhabrata Basu

Professor in Strategic Management Area

Indian Institute of Management Indore

Prabandh Shikhar, Rau - Pithampur Rd, Indore, Madhya Pradesh 453556, India

Tel: +91 731 243 9566; Email: sbasu@iimidr.ac.in

Surender Munjal*

Associate Professor

Leeds University Business School

Maurice Keyworth Building, University of Leeds, Leeds LS2 9JT, UK

Tel: +44 113 343 8080; Email: S.Munjal@lubs.leeds.ac.uk

Pawan Budhwar

Professor and Head of School

Aston Business School

Aston University, Aston Triangle, Birmingham, B4 7ET

Tel: + 44 121 204 3000; Email: P.S.Budhwar@aston.ac.uk

Pradeep Misra

Director, Ministry of Communications, Government of India

Khurshid Lal Bhawan, Janpath, New Delhi-110001

Tel: +91-9868218125; Email: pradeepk.misra@gov.in

* Corresponding Author

Shubhabrata Basu is a Professor in Strategic Management at the Indian Institute of Management, Indore. He has over 25 years of leadership experience in Corporate (heavy engineering projects), Government (civil services) and Academia. His research interest revolves round Environmental Discontinuities, Formal and Informal Institutions in Emerging Market and their Adaptive Strategies. He has published in Journal of World Business, Journal of Business Research, International Business Review, and other peer reviewed journals.

Surender Munjal is an Associate Professor of International Business and Strategy at the Leeds University Business School. His research focuses on exploring determinants of foreign trade, investment and entrepreneurship in and out of emerging markets, with special focus on India. He sits on the editorial review boards of International Business Review, Management International Review, and the Production and Production and Operations Management Journal.

Pawan Budhwar is the 50th Anniversary Professor of International HRM, Head of Aston Business School, and an Associate Pro-Vice Chancellor International (India) at Aston University. He is the Co-Editor-in-Chief of *Human Resource Management Journal.* Pawan is globally known for his research in the fields of strategic and international HRM and emerging markets with a specific focus on India. He has published over 150 articles in leading journals and also written/edited over 25 books.

Pradeep Misra is an officer of the Indian Telecommunications Service. He is currently working as Director in Ministry of Communications and Information Technology, Govt. of India. He implemented regulation for Mandatory Testing and Certification of Telecommunications of Equipment (MTCTE) in India. He was awarded with the Outstanding Reviewer Award for the Academy of Management meetings in 2019, 2017, 2015, and 2014.

Entrepreneurial Adaptation in Emerging Markets: Strategic Entrepreneurial Choices, Adaptive Capabilities and Firm Performance

Abstract

Sustaining entrepreneurship in resource constrained and institutionally weak emerging markets pose theoretical and practical challenges. We address some of these challenges by adopting a middle-range theoretical approach and proposing the concept of 'Entrepreneurial Adaptation' (EA). Complementing the concept of entrepreneurial mindset and subsuming those of strategic orientation and adaptive capabilities, we posit that EA consists of a set of cognitively derived, action oriented strategic entrepreneurial choices that foster certain dimensions of adaptive capabilities which in turn sustain entrepreneurship in emerging markets. We empirically test our hypotheses on a proprietary survey-based dataset of 219 Indian firms and contribute to the extant literature by proposing a model of EA besides holding a promise to provide an alternative bridge to the two disciplines of entrepreneurship and strategy.

Keywords: *Entrepreneurial Adaptation, Strategic Entrepreneurial Choices, Adaptive Capabilities, Emerging Markets, Firm Performance, India*

1. Introduction

Despite uncertainties in the external institutional environment and constraint in accessing key resources, such as financial, technological and skilled human resources, entrepreneurship in emerging markets (EMs) is thriving. This is evidenced by a record number of new ventures produced by entrepreneurs in these markets (FT, 2018; McKinsey, 2018). This is particularly surprising because the adverse effect of institutional uncertainties and resource constraints on the creation and sustenance of entrepreneurship (Blanchflower and Oswald, 1998; Chliova *et al.*, 2015) is more acute in EMs than developed economies (Naude *et al.*, 2008). Not many firms in these markets exhibit business group like structures or interlocking directorates that can arguably mitigate such adversities (Chittoor *et al.*, 2015; Peng *et al.*, 2001), yet the vast majority of entrepreneurial ventures in EMs continue to spawn and thrive as is empirically evident. This is counterintuitive to the received wisdom. So, how does entrepreneurship sustain in EMs?

We investigate this anomaly by adopting a middle-range theoretical approach. We contend that some of the defining characteristics of entrepreneurship, like aggressiveness and risk taking behavior undertaken to capture market share through product-market strategies, are largely muted in EMs because scarcity of resources and uncertainties in their external institutional environment (Hoskisson et al., 2000) prevent these firms from undertaking the usual route for entrepreneurship. Instead, EM firms follow a process of entrepreneurial adaptation which reveals certain strategic entrepreneurial choices that firms make in order to judiciously utilize their resources and develop capabilities to adapt to their institutional environment. This eventually enables EM firms to sustain growth and profitability in a fluidic environment. In other words, adaptive capabilities that EM firms develop mediates the relationship between their entrepreneurial choices and performance.

However, such an assertion requires rigorous and generalizable empirical validation which this study aims to do.

In this quest, we first define the key constructs of interest, namely Entrepreneurial Adaptation (EA), Strategic Entrepreneurial Choices (SEC) and Adaptive Capabilities (AC). EA is the mechanism that imparts entrepreneurial organizations with (i) *cognitive cum analytical ability* to foresee long-term and emerging opportunities (and threats), along with (ii) *decision making ability* with respect to available choices, and a (iii) *proactive action orientation* to *build* adaptive capabilities and *leverage* such capabilities to sustain performance in a resource constrained environment. Conceptually, EA builds on the entrepreneurial mindset framework (Ireland, Hitt and Sirmon, 2003), which highlights the attributes of long-term orientation, flexibility, and novelty as means of adapting to institutional uncertainties. However, the necessary conditions of *a priori* availability of resources and capabilities to develop an entrepreneurial mindset, limits its applicability in the EMs, necessitating the conceptualizing of EA. The mechanism of EA consists of other two sub-constructs, namely SEC and AC.

SEC is derived from the strategic orientation literature and consists of three dimensions, namely *futurity*, *analysis* and *proactiveness* (Venkatraman, 1989). It reflects the firm's cognitive considerations towards long-term orientation, comprehensive decision-making, ensuring internal consistency and flexibility, and a proclivity towards novel activities to explore, exploit and adapt to uncertain environments respectively (Levinthal and March, 1993). The SEC construct is *entrepreneurial*, as it fosters the creation of novel capabilities, and it is *strategic*, as it aids firm sustainability by creating and leveraging adaptive capabilities.

AC refers to the firm's ability to identify and capitalize opportunities emerging in the market (Chakravarthy, 1982; Miles *et al.*, 1978; Wang and Ahmed, 2007) by balancing exploration

and exploitation strategies (Staber and Sydow, 2002) *via* resource flexibility. This leads to adaptation and evolution of the firm (Rindova and Kotha, 2001). The core of our thesis suggests that AC is the focus and outcome of the SEC. Together, SEC and AC enable firms to exhibit entrepreneurial adaptation and sustain entrepreneurial performance, characterized both in terms of growth and profitability. The conceptual model of our study reflecting EA and its constituents SEC and AC leading to performance is presented in Figure 1.

Figure 1 about here

Contextually, we embed our study in India, an emerging market with a culture of entrepreneurship, without an ideal ecosystem to sustain such ventures. India, viewed from the western lens is a land of paradox. It is the fifth largest global economy in nominal dollar terms, with the second largest manpower base, but replete with institutional uncertainties and induced by its three decade long incremental deregulation. It is from this context that we draw through a questionnaire survey, a proprietary data set of a sample of 219 firms operating across sectors. We supplemented the primary data with suitable archival data, ensuring objectivity of our study.

Through our study, we make three contributions to the literature. First, theoretically, we contribute to the extant frameworks on strategic entrepreneurship (Hitt *et al.*, 2011; Wright and Hitt, 2017) by proposing a framework of *entrepreneurial adaptation* in resource constrained environment. Further, we conceptualize the process of EA itself to consist of SEC that drives AC which in turn impart sustainability in uncertain EMs. We operationalize the constructs and empirically determine their contributions to sustained entrepreneurship in consonance with the expectations of middle-range theory. Secondly, our contextual/spatial contribution relates to

entrepreneurial adaptation in EMs where firms often face uncertainities and constant change in their institutional environment. Entrepreneurship literature predominantly investigates the entrepreneurial mindset in the context of large western firms, bestowed with resources and capabilities, but burdened by organizational inertia (McGrath and MacMillan, 2000; Ireland *et al.*, 2003; Hoskisson and Busenitz, 2002). Through entrepreneurial adaptation, we present the complementary view of (relatively) smaller firms *slowly and steadily building up their portfolio of capabilities to eventually sustain their ventures in uncertain environment.*

Finally, our study contributes specifically to the evolving research on entrepreneurship in EMs (Foo *et al.*, 2020). There are only a handful of studies that truly reveal the evolution and activities of entrepreneurship in EMs (for example see Agarwal *et al.*, 2020; Bao *et al.*, 2020; Bischoff *et al.*, 2020; Bu and Cuervo-Cazurra, 2020; Shirokova *et al.*, 2020; Tae *et al.,* 2020; Zhou *et al.*, 2020). We have embedded our study in the context of Indian firms, at a time of political, economic and regulatory upheaval affecting institutional environment. Uncertainties in the institutional environment are sources of *ex-ante* entrepreneurial opportunity but *ex-post* threat from later stage opportunistic competitors (Tracey and Phillips, 2011). Consequently, EM entrepreneurship is likely to chart an independent course, away from the dominant focus on innovation *per se*. On a lesser note, we explicate the content and process of entrepreneurial adaptation, following its inception by Bryant (2014), by defining and operationalizing and giving it a contextual application. Our study has significant practical implications for present and future managers in emerging economies.

2. Theory Building: Entrepreneurial Adaptation in Emerging Markets

The extant literature at the cross-roads of institutions, entrepreneurship and strategy suggests various ways in which changes and uncertainties in a given institutional environment

affects entrepreneurship. At the most fundamental level, scholars explain how institutions are "created, modified, transformed, or extinguished" (Dacin et al., 2002, p. 45), and how changes in institutional environment shape the firm's behavior and actions (see for example, Lawrance and Suddaby, 2006; Mayer, 1982 and Hoffman, 1999). Strategic choice theory (Child, 1972, 1997) provides a framework of decision making through which the firm adapts to changes in institutional environment by making corresponding changes in its organizational structure.

Scholars (see for example Marquis and Raynard, 2015) synthesizes this body of literature under the umbrella term "institutional strategies" (p. 291) and argue that firms respond to uncertainties by fostering an entrepreneurial mindset (McGrath and MacMillan, 2000; Ireland *et al.*, 2003; Hoskisson and Busenitz, 2002). This enhances firms' uncertainty handling abilities by triggering their *cognitive ability* to interpret ambiguous and fragmented situation (Alvarez *et al.*, 2013; Alvarez and Barney, 2002; Miles *et al.*, 2000), leading to sensing and seizing of opportunities in the market. Bylund and McCaffrey (2017) suggest firms follow different paths to deal with uncertainities which involves re-combination, re-organization, re-allocation of resources.

However, a closer prognosis of entrepreneurial mindset phenomenon conveys a bias or a notion of *pre-existing ecosystem of* exploitable resources and capabilities. For example, the element, entrepreneurial alertness of *habitual* entrepreneurs speaks of an *inventory* of opportunities (McGrath and MacMillan, 2000). Likewise, the real option logic refers to allocation of real assets (Barney, 2002) that enhances strategic flexibility (Mosakowski, 2002). Finally, entrepreneurial mindset framework, relies on an *opportunity register*, an explicit record of extant resources and capabilities accessible within the same firm (De Carolis, 2003). However, this *ex-ante* repository of resources and capabilities are inconsistent with EM context thereby limiting the applicability of entrepreneurial mindset to explain entrepreneurial sustenance in EMs.

Consequently, we propose the concept of entrepreneurial adaptation. Unlike entrepreneurial mindset, EA *captures* firms' need to overcome scarcity in perpetually resource constrained environment and the difficult choice they make to proactively *build* capabilities that leads to adaptation and sustenance in unsupportive ecosystems. The firms' capabilities to adapt have a rich lineage (Chakravarthy, 1982; Staber and Sydow, 2002) and are derived as components (Wang and Ahmed, 2007) of dynamic capabilities (Teece, 2012; Teece, Pisano and Shuen, 1997). AC enables effective search and balancing (exploration and exploitation) acts (Staber and Sydow, 2002) and ensures adaptive fit. AC can be measured along four dimensions, namely market related AC (MAC), technology related AC (TAC), organization related AC (OAC), and non-market related AC (NMAC) (Child, 1997; He, Tian and Chen, 2007).

MAC enables adjustment to changing market condition, allowing firms to effectively monitor target market demand (Oktemgil and Greenley, 1997; Tuominen *et al.*, 2004; Akgün *et al.*, 2012). It reflects the firm's market responsiveness which can yield higher performance *via* attaining customer satisfaction (McKee *et al.*, 1989; Ruekert and Walker, 1987; Bergen *et al.*, 1992; Oktemgil and Greenley, 1997). TAC enables firms to improve product quality and performance and/or avert risks of obsolescence (Tuominen *et al.*, 2004; Law *et al.*, 1998; Akgün *et al.*, 2012) by building or buying on existing, complementary or advanced technologies. OAC refers to the firm's ability to revamp its management system by setting aside outmoded and obsolete routines and practices. Overcoming core rigidity and inertia enables rapid response to shifts in its business priorities (Gibson and Birkinshaw, 2004; Tuominen *et al.*, 2004; Akgün *et al.*, 2012). In contrast, NMAC responds to changes in regulatory policies and social expectations (Baron, 1997) by bridging and buffering from institutional and social environment (Dieleman and

Boddewyn, 2012; Zheng *et al.*, 2015; Mellahi *et al.*, 2016; Fennell and Alexander, 1987; Meznar and Nigh, 1995; He *et al.*, 2007).

Entrepreneurial choices a firm make for building AC is largely non-existent in the literature. The closest ally is strategic choice theory by Child (1972, 1997) which argues that firms change their organizational structure by making strategic choices in response to changes in environmental conditions. In contrast, our conceptualization of EA argues for strategic entrepreneurial choices and the impact it has on firm performance *via* building different types of adaptive capabilities. To conceptualize, SEC we borrowed the construct of strategic orientations (Venkatraman, 1989), a comparative taxonomically derived set of six strategic postures to ensure fit between chosen strategy and performance (Covin and Slevin, 1990; Venkatraman and Camillus, 1984). The postures are: (i) *Aggressiveness* - shows the firm's growth oriented posture (Wissema et al, 1980) to allocate resources *quickly* for capturing market share *via-a-vis* competitors (Hofer and Schendel, 1979; Buzzell, Gale and Sultan, 1975); (ii) *Analysis* - relates to the firm's long-term consideration towards achieving internal consistency through actual resource allocation to achieve chosen objective (Grant and King, 1982); (iii) *Defensiveness* – reveals the firm's approach towards making efficiency gains, through optimized resource allocation to defend organizational core (Thompson, 1967) as well as domain defense (Miles and Cameron, 1982); (iv) *Futurity* - relates to long-term temporal consideration towards predicting customer preferences and environmental trends, enabling firm to reach desired state (Andrews, 1971; Ansoff, 1965; Grant and King, 1982); (v) *Proactiveness* – portrays the firm's opportunity seeking behavior in emerging industries. This includes resource reallocation from maturing and declining markets to emerging areas, ahead of competition (Miles *et al.*, 1978); and (vi) *Riskiness* – shows the firm's actual pattern of resource allocation (Hertz and Thomas, 1983; Bowman, 1982; Baird and Thomas, 1985) to ventures that

may give higher returns. We hypothesize that SEC builds on some of these dimensions with a view to create adaptive capabilities, thereby defining the process of entrepreneurial adaptation.

3. Hypothesis Development

3.1. Strategic Entrepreneurial Choices in Emerging Markets

Of the six strategic postures (Venkataraman, 1989), *futurity* and *analysis* fit the need of EA to develop long term cognition of environmental events (Ireland *et al.*, 2003; Wilden and Gudergan, 2015) and an internally consistent and comprehensive decision making (Gruber, 2007) process, without placing excess demand on resources, thus befitting EMs. Although, *analysis* and *futurity* can also enable competitive rivalry, but their primary role is to adapt to uncertainties. These two postures contrast to competitive *aggressiveness* and *risk taking* orientations that are resource demanding and attuned to somewhat mature markets (Lumpkin and Dess, 2001). Also, fruitful application of *analysis* and *futurity* in EA complements *proactiveness* which signifies a novelty seeking action orientation. EMs offer dynamic environment with more growth opportunities, making proactiveness a viable choice for adaptation. *Proactiveness* is necessary to build capabilities for efficient prototyping, testing, learning, refining/modifying and in the process, adapting to uncertain environments. It subsumes the element of search for new opportunities and a willingness to experiment with unrelated product lines (Venkatraman, 1989; Miles *et al.*, 1978). We argue that *proactiveness* by design is responsive to consumer needs via prototyping. While *proactiveness* seeks opportunities, a full-blown aggressive and risky venturing into EMs is likely to deviate the focus on adaptation and prove to be a prohibitively costly choice that is not generally observed (Mair and Marti, 2009).

Further, we believe that *defensiveness* posture, emphasizing efficient domain defense (Miles and Cameron, 1982) is a preferred strategy for matured low growth market (Miles et al.,

1978) that do not characterize EMs and hence not conducive for entrepreneurial adaptation. The literature further suggests that entrepreneurial choices in EMs, foster cognitive abilities to sense and seize opportunities by building capabilities (Teece, 2012), that are adaptive, domain fungible across, non-constraining (Lebusa, 2008) and not overtly focused on performance *per se* (Zhou and Li, 2010). Building on the evidence from literature, we posit that the entrepreneurial choices are analytical and proactive with futuristic strategic focus on adaptation. Therefore, we hypothesize that:

Hypothesis H1: Analysis, futurity and proactiveness based strategic entrepreneurial choices positively and significantly affect the adaptive capabilities of the firm in EMs.

3.2. Adaptive Capabilities and Firm Performance in Emerging Markets

The extant literature suggests that AC allows firms to effectively respond to environmental contingencies (Zhou and Li, 2010), by fitting the internal processes with external environment (Harrington *et al.*, 2004) that ultimately translates to sustained competitive advantage (O'Cass and Ngo, 2007). Of the four dimensions of AC, technology-based AC (TAC) is likely to be an insignificant contributor to performance in EMs. Due to low level of economic development and resource paucity, firms in EMs are generally technology laggard (Buckley *et al.*, 2016). Advanced technology development to outcompete in the market is generally not the forte of EMs because such efforts require long gestation period of TAC (Kumar, Kumar and Persaud, 1999), which is contrary to their catching-up strategies (Mathews, 2006) and demand significant investment of resources (Tallon, 2008) that may not provide enough return on investment because there is lack of general appreciation for premium products from price sensitive population in EMs (Khanna and Palepu, 2010).

In contrast, EM firms may prefer organization-related AC (OAC), as it allows cost efficiency centric restructuring, rationalizing and reconfiguration of internal factor inputs (Filatotchev *et al.*, 2003; Gibson and Birkinshaw, 2004), thereby enhancing performance. OAC enables agile resource redeployment by a leaner organization to experiment with and exploit emerging opportunities specially in the absence of inertia driven naysayers (O'Shea *et al.*, 2005; Walter *et al.*, 2006; Yusuf *et al.*, 2004). Alternatively, OAC enables large corporations to spinoff small entrepreneurial ventures to experiment with early entry and skimming strategies (Rosenfeld, 1984; Woo, Willard and Daellenbach, 1992). Therefore, we believe that OAC contributes to growth by making firms lean and agile, thereby exploit emergent opportunities and also contribute, albeit finitely, to profitability *via* excess slack optimization.

Market-related AC (MAC), involves activities like gathering market intelligence, brand management and customer relationship management to ensure growth and preservation of market shares (Morgan, Slotegraaf and Vorhies, 2009). MAC may involve spending firm resources to identify appropriate market segments and to match the requirements of the segment with appropriate products/services. This may affect profitability especially when consumers are price conscious and brand building exercises may not fetch the intended premium, despite adding newer customers within the fold. However, in the population rich EMs lack of MAC can prove unsustainable as it can aid the firm in market development and/or penetration strategy.

The last dimension namely Non-market-related AC (NMAC) relates to the firm's efforts to respond to changes in regulatory and social environment (Baron, 1997). One of the contributors to institutional uncertainties in EMs emanate from the varying intensity of sectoral deregulation which are often closely guarded secrets (Wu and Xu, 2005). However, *a priori* information about such events enable firms an early entry and secured incumbency (Oetzel and Banerjee, 2008).

Literature suggests that firms use 'bridging' and 'buffering' activities to adapt or insulate themselves from institutional environment as well as respond to social expectations (Dieleman and Boddewyn, 2012; Zheng *et al.*, 2015; Mellahi *et al.*, 2016; Fennell and Alexander, 1987; Meznar and Nigh, 1995; He *et al.*, 2007). Bridging implies connecting to another organization (Fennell and Alexander, 1987; Scott, 2003) including politico-bureaucratic entities, through a variety of forms, to gain information for predicting and adapting to their expectations (Basu *et al.*, 1999; Meyer and Rowan, 1977). Buffering relates to efforts made by the firm to protect its core from environmental uncertainties (Scott, 2003; Thompson, 1967) and in the EM context it refers to unwelcome advances as a result of political connections. NMAC may provide information to gain first mover advantages, bag profitable contracts, create necessary networks and be embedded enough to protect and expand their profit margins. Synthesizing the different dimensions of AC, we hypothesize that:

Hypothesis H2a: Organizational, marketing and non-market related adaptive capabilities, positively and significantly affect growth for entrepreneurial firms in EMs.

Hypothesis H2b: Organizational, and non-market related adaptive capabilities, positively and significantly affect profitability for entrepreneurial firms in EMs.

3.3. Strategic Entrepreneurial Choices, Adaptive Capabilities and Performance in Emerging Markets

Following H2a/b, we argue that SECs made by EM firms improve performance *via* developing ACs. We start with TAC which are hypothesised in H2a/b to be not significant in improving firm performance because developing TAC is not EM firms' forte, and it can be an expensive affair (Zahra, 1996). Thus, TAC may not sufficiently mediate SEC and performance relationship. In the absence of a significant TAC, we posit that EM firms may rather make SECs

and reallocate their resources in such a way that it builds the other three dimensions of ACs that can help in enhancing performance.

In an EM context, where economic conditions present resource constraints, it can be anticipated that firms make strategic choices to develop OAC which makes them lean, cost-efficient, and responsive towards external changes (Judge and Blocker, 2008; Meyer, 1982). This can facilitate value creation and expansion particularly among masses at the bottom-of-the-pyramid (BoP) segment (Basu *et al.*, 2021). This may further induce entrepreneurial firms to develop NMAC to inculcate lucrative relations with politico-bureaucratic nexus (Doh *et al.*, 2012). This can aid firms in tapping into the BoP segment, offsetting costs associated with developing market based strategies (Holburn and Vanden Bergh, 2014), and at the same time to adapt to regulatory uncertainties. Thus, OAC and NMAC may mediate SEC-performance relationship.

Finally, MAC are inherent for entrepreneurship. It drives firm performance by strengthening firm's orientation towards the market by proactively sensing and acting on market signals (Guo *et al.*, 2018). Firms undertake market research and experimentation for proactively sensing market signals and acting upon them (Guo *et al.*, 2018). The insights generated by MAC often allows firms to innovate and ride with the trend in the market. However, narrow depth and breadth of product portfolio due to resource constraints and limited TAC, may affect performance expectations from MAC (Combe and Greenley, 2004; Yan et al., 2010). Consequently, we believe, that MAC may not mediate SEC-performance linkage. Hence, we hypothesize that:

H3a: Organizational, and non-market related adaptive capabilities mediate the association between strategic entrepreneurial choices and growth of entrepreneurial firms in EMs.

H3b: Organizational and non-market related adaptive capabilities mediate the association between strategic entrepreneurial choices and profitability of entrepreneurial firms in EMs.

4. Research Method

In this study, we theoretically deduce our constructs and dimensions from the extant literature, and applied 'maximum likelihood factor reduction' technique to test the predicted dimensions within their respective constructs (Fodor, 2002) along with Pearson's correlation matrix to check inter-correlation amongst items (Coltman *et al.*, 2008; Diamantopoulos and Siguaw, 2006). Furthermore, we used multiple mediator process models as proposed by Preacher and Hayes (2008) in conjunction with 'Seemingly Unrelated Regression' (SUR) method as an alternative triangulation procedure (Zellner, 1963) to test our hypotheses. To overcome contextual influence, we tested for construct validity using a three-step process. First, we use the extant literature to derive our instruments' *mutatis mutandis*. Second, four academic experts assessed the items, and some items were reformulated. The questionnaire was then pretested on 43 senior management executives, representing a range of organizations, who came for executive training at one of the top-rated management institutions in India. Based on their feedback, several iterations were made in the questionnaire in conjunction with the inputs from the academic experts. Finally, the questionnaire was presented to a strategy practitioner with theoretical knowledge of the constructs, who concurred on its fitness for use.

4.1. Sample and Data Collection

The survey instrument containing the respondent information and main items was administered on a sample of 2000 firms, of all sizes, randomly drawn from the user database of an online business intelligence portal - www.newsonprojects.com. The portal typically has mid to top level executives and entrepreneurs from a range of industries including banking, capital goods, information technology, construction, infrastructure and consumer products. We used both online format Surveymonkey® and physically administered survey questionnaire on executives. Online

survey ensured elimination of missing values (Hair, Ringle and Sarstedt, 2011) and offline ensured profiles of respondents. Both groups were given the same survey. The ANOVA test on all 12 dimensions of the two response groups reveals no significance. Hence, we could rely on the profiles of online respondents.

We kept the window for data collection from May 2015 to November 2015. This period coincided with a period of economic uncertainties, with the central bank (the Reserve Bank of India – RBI) enforcing one-of-a-kind asset quality review (AQR) of all the commercial banks. This step by the RBI was a response to the build-up of nonperforming assets in the banking system that in turn reflected payment defaults by corporations on account of economic turbulence. Further, RBI's actions stifled the discretionary lending power of frontline bank managers choking a source of institutional funding for entrepreneurs. One of the co-authors followed up the survey with telephone calls, text messages and email requests. A total of 311 questionnaires were returned out of which, 219 valid responses were obtained across services and manufacturing industries, thus ensuring generalizability (Tuominen *et al.*, 2004). The demographic profile of the respondents, firm and industry information is abridged in Table I.

Table I about here

4.2. Response Biases Test

We adopted Armstrong and Overton (1977) approach to test sample representativeness and non-response biases. We divided the total sample into two equal groups, based on early and late responses. We performed ANOVA test on all the 12 dimensions of the three constructs (SEC = 6, AC = 4, Performance =2). The results of ANOVA ($0<F<1.58$) suggest that there is no significant

difference between early and late respondents. The analysis of profile of both the sub-samples suggests that age of the firms of early responses was significantly different from that of late responses ($p<0.01$). Larger firms responded to the survey questionnaire earlier than smaller firms. Age, size and sales turnover of 50 randomly selected valid responses were compared with 50 firms that had not responded to the questionnaire items but submitted the objective data about the company, i.e. age, size and sales turnover. The difference between the two groups on firm age, size and sales turnover was found to be not significant ($p>.11$ and $p>.62$), positing that non-response bias was not a problem.

4.3. Test for Common Method Variance

To test against common method variance (CMV) we followed procedural approach by ensuring respondent anonymity and confidentiality (Becker *et al.*, 2012; Podsakoff *et al.*, 2003). We further adopted a statistical method for CMV as proposed by Kollmann and Stockmann (2014), by correlating self-reported data with secondary data on firm performance. Archival performance data is considered less prone to distortion vis-à-vis response biases (Stam and Elfring, 2008). We took a random subsample representing 30% of the sample size and obtained the performance measures like profit after tax (PAT), return on investment (RoI), and return on sales (RoS) (Capon *et al.*, 1990) from the CMIE-ProwessIQ and cross verified it with the Capitalineplus databases, the most credible databases on Indian firms in academic research of similar nature (Buckley *et al.*, 2016). Further, the performance measures correspond to three financial years namely 2012-13, 2013-2014 and 2014-2015 that in turn correspond to a three-year horizon expected to be considered by respondents to evaluate firm performance.

We dichotomized the three-year data using a *logical if function,* i.e. if the last/end year's figures are more than the first/beginning year's figures, then we assigned 1, else 0. This approach

brought perceptual uniformity of performance relative to competitors and independent of industry effect. Additionally, consistently improving performance trajectory, over three years, (dichotomized as 1) denotes consistent performance despite uncertainties and vice versa. A respondent, being true to response, and relying on recallable memory and managerial inferences (Bradburn, Rips and Shevell, 1987), shall assign a higher score to such consistently improving performance measures, than otherwise and which can be verified through a correlation analysis. A positive and significant correlation between reported and archived PAT ($r= 0.4977$, $p<0.000$) RoI ($r= 0.4681$, $p<0.000$) and RoS ($r= 0.3246$, $p<0.007$), performed simultaneously, supported the validity of performance, based on self-reporting data. Thus, CMV was not a threat in our study. Finally, our constructs and dimensions are adopted from a vetted scale that is designed, *not to suffer* from conceptual overlap (Brannick *et al.*, 2010). Analysis performed ex-post using variance inflation factor (VIF) returned a score of 1.61 (<3.00 for a conservative estimate). Consequently, inflated bias from overlapped item was not a problem as well (Conway and Lance, 2010).

4.4. Measures

All the variables adopted from literature are measured on a seven-point Likert scale. The descriptive statistics and correlation matrix at dimension level are provided in Table–II.

Table II about here

Strategic Entrepreneurial Choices

As explained in theory development section SEC consists of three dimensions - *analysis* (SAN 6), *futurity* (SFUT 5) and *proactiveness* (SPRA 5). The upper case letters, in parenthesis, represent the abbreviations and number represents the items. The scale was adopted from literature

(Strong and Morgan, 2003; Venkatraman, 1989) and consisted of 3 additional dimensions: aggressiveness (SAG 4), defensiveness (SDEF 4) and riskiness (SRSK 5).

Adaptive Capabilities

We used the instrument developed by Wong *et al.* (1998) to measure TAC having 5 items. We used Gibson and Birkinshaw's (2004) 3 items to measure OAC. The MAC and NMAC were taken from the items developed by Oktemgil and Greenley (1997) and He *et al.* (2007), having 5 and 4 items respectively.

Entrepreneurial Sustenance (Performance)

We used the growth and profitability indicators used by Venkatraman (1989) to measure entrepreneurial sustenance in terms of performance. The three Growth (SGR) items are (i) sales growth relative to competition, (ii) satisfaction with sales growth and (iii) gains in market share *vis-à-vis* competitors. Profitability (SPRO) has 5 items namely (i) own satisfaction with corporate returns (FP1) and competition benchmarked (ii) PAT, (iii) RoI, (iv) RoS, and (v) financial liquidity.

Control Variables

We used firm age, size and industry as the three control variables in this study. Firm age was deduced by taking natural log of difference between year of incorporation of firm and year of data collection, i.e. 2015 (Finkelstein and Hambrick, 1996). Firm size was calculated by taking natural log of number of employees (Tushman and Romanelli, 1985). Industry effects are operationalized by dichotomizing manufacturing (0,1) and services (1,0) firms separately using dummy variables.

4.5. Choice of Analytical Technique

To overcome the contextual influence on constructs and to test our H1 regarding configuration of SEC in EMs, we first applied the principal component factor reduction technique to load items on respective dimensions and by assuming that common variances take up all of the total variances. Secondly, we employed the decidedly superior (Fabrigar *et al.*, 1999) maximum likelihood factor reduction technique, with varimax rotation (assuming uncorrelated dimensions) to load dimensions onto the constructs. We suppressed items with factor loading less than 0.2 to enhance internal consistency (Dess and Beard, 1984). Further, we employed the Likelihood Ratio (LR) test to check for (i) independence (controlling for sphericity), (ii) Heywood boundary solution of full factor explanation/zero uniqueness, and (iii) single factor saturated models. Maximum likelihood factor reduction supported our conceptualization of SEC, AC and performance as appropriate latent constructs. Third, we employed process models as proposed by Preacher and Hayes (2008). This also allowed us to analyze the association between SEC and performance, mediated through adaptive capabilities. We also performed Sobel's Test, to validate the conceptualization of our model. Finally, as a robustness test, we tested the prediction/hat matrix (by regressing AC on SEC) mimicking EA, to determine its influence on performance. We described this separately under robustness test section. We also tested our models using alternative modelling techniques like multivariate seemingly unrelated regression, though we did not report the same due to space constraints[1]. We used bootstrapping (5,000 iterations) and robust standard errors to enhance model fit.

[1] Results are available on request.

4.6. Model Specifications

The empirical models used to test H1 (impact of SEC on AC) is provided in Model M1a. We additionally tested the impact of SEC on performance by simultaneously estimating models M1b and M1c.

M1a: $AC_c = \alpha_0 + \alpha_1 SEC_c + \alpha_2 \sum CV + \varepsilon_0$ --- (1.1)

M1b-M1c: $Perf_{G,P} = \alpha_0 + \alpha_1 SEC_c + \alpha_2 \sum CV + \varepsilon_0$ --- (1.2)

We test H2a and H2b (impact of individual AC dimensions on performance) by using models M2a and M2b. We additionally tested the overall impact of AC (measured as a single construct with all four dimensions) along with SEC construct on performance using models M2c and M2d.

M2a-M2b: $Perf_{G,P} = \beta_0 + \beta_1 \sum AC_d + \beta_2 \sum CV + \varepsilon_1$ --- (2.1)

M2c-M2d: $Perf_{G,P} = \beta_0 + \beta_1 SEC_c + \beta_2 AC_c + \beta_3 \sum CV + \varepsilon_1$ --- (2.2)

AC_c and $Perf_{G,P}$ imply the AC_c (adaptive capabilities measured as a single construct with its all four dimensions) and $Perf_{G,P}$ (firm performance measured in terms of growth and profitability) as outcome variables obtained by the firm on exercising SEC_c (strategic entrepreneurial choices measured as a single construct with underlying *analysis*, *futurity* and *proactiveness* dimensions). $\sum CV$ implies array of control variables - age, size and industry effect. ΣAC_d represents the four dimensions of adaptive capabilities. α_i *and* β_i are the corresponding coefficients/parameters and ε_i are the error term. Eqn. 1.2 and 2.2 are used to run Sobel's test for confirming mediation effect of AC on performance.

Hypotheses H3a and H3b are tested using multiple (four) parallel mediator process models (Alvarez and Juang, 2010; Chang, 2008; Perez *et al.*, 2012), which are represented in the Figure I and II and in the general form (Hayes, 2013) these are as follows:

$$AC_d = \partial_0 + \partial_1 SEC_c + \varepsilon_2 \qquad \text{for all d=1 to 4} \qquad \text{--- (3.1)}$$

$$Perf_{G,P} = \partial_0 + \partial_1 SEC_c + \sum_{d=1}^{4} \partial_2 AC_d + \partial_3 \sum CV + \varepsilon_2 \qquad \text{--- (3.2)}$$

where ∂_i are the corresponding coefficients/parameters and ε_i are the error term.

5. Results

The results for H1 and H2 are presented in Table -III (Models M1a-M2b) and for H3 are presented Table -IV (Model M3a-M3f for multiple mediator process models). Figure 2a and 2b shows the results with graphical presentation.

Table -III, IV and Figures 2a and 2b about here

Hypothesis H1 posits that of the strategic entrepreneurial choices, involving an idiosyncratic orchestration of *analysis*, *futurity* and *proactiveness* builds adaptive capabilities of the firm. As evident from models M1a-M1c presented in Table -III, the strategic entrepreneurial choice construct (combining *analysis*, *futurity* and *proactiveness*) has a positive and significant (β=0.881, $p<0.01$) association with adaptive capabilities construct. Thus, H1 is supported.

Hypotheses H2a and H2b posit the association of the different adaptive capabilities with growth and profitability. Models M2a and M2b reveal a significant and positive association between organizational (β=0.174, $p<0.05$), marketing (β=0.218, $p<0.01$) and non-market adaptive capabilities (β=0.215, $p<0.01$) and growth, while organizational (β=0.218, $p<0.05$) and non-market adaptive capabilities (β=0.310, $p<0.01$) are significant and positive predictors of profitability. Technological adaptive capabilities have no significant association with either of the performance parameters. Thus, H2a and H2b are also supported.

Hypotheses H3a and H3b posit the mediation effect of AC dimensions on the SEC and firm performance linkages. More specifically, we postulated that only organizational and non-market-related AC to be significant mediators. As anticipated, Table -IV (models M3a through M3f) shows only organization (β=0.185, $p<0.05$) and non-market (β=0.163, $p<0.05$) related adaptive capabilities positively and significantly mediate the association between SEC and growth, while only non-market (β=0.252, $p<0.01$) related AC significantly mediates the association between SEC and profitability. In both the above cases of mediation, the upper and the lower limits of the bias corrected confidence is (LLCI and ULCI) > 0. Thus, hypothesis H3a is fully supported while H3b is partially supported.

Additional Robustness test

We perform robustness tests to investigate the composite effect of *Entrepreneurial Adaption* construct, consisting of SEC_c and AC_3 on growth and profitability (entrepreneurial sustenance in EMs). Here, AC_3 implies the factor reduced construct of Adaptive Capabilities, and in line with our hypotheses, consisting of marketing, organizational and non-market related AC, but not technology related capabilities. For this, we regressed AC_3 on SEC_c, thereby creating a prediction (projection/hat) matrix (Ahammad *et al.*, 2021), which we term as EA to signify the creation of *Entrepreneurial Adaption* construct. We subsequently regressed performance (growth and profitability) on the composite EA construct to test the effect on firm performance.

$$Perf_{G,P} = \varphi_0 + \varphi_1 EA + \varphi_2 \sum CV + \varepsilon_3 \quad \text{--- (4)}$$

We append the results as Model 4 a, b in Table IV. We find that Entrepreneurial Adaptation positively and significantly ($p<0.01$) affect growth and profitability. With coefficients of φ_{growth}=1.123 and $\varphi_{profitability}$=1.265, the results are indicative of the likely existence of

entrepreneurial adaptation as a viable mechanism of sustenance in perpetually resource constrained environments like the EMs.

The results of Sobel's test using the coefficients and standard errors of the linkages [SEC→AC] with that of [AC → Growth] and [AC → Profitability], respectively suggests a test statistic for AC mediating SEC and growth at 3.44 ($p<0.000$), while the same for profitability is 3.38 ($p<0.000$). Therefore, the AC construct, mediate the association between strategic entrepreneurial choices and firm performances.

6. Discussion

Our investigation into the sustenance of entrepreneurship in emerging markets reveals novel insights. First, it shows the process of entrepreneurial adaptation following which EM firms exhibit entrepreneurial sustenance under resource constrained and institutionally uncertain environments. EA is unique in its ability to link the streams of strategic management and entrepreneurship. Strategic management investigates the advantage seeking behavior, while entrepreneurship deals with the firm's opportunity seeking behavior (Hitt *et al.*, 2001, 2011). Advantage accrues from the firm's ability to *adapt* via achieving a *fit* between its *internal* systems and processes and the environment (Harrington *et al.*, 2004; Chakrabarti, 2015). In contrast, entrepreneurial opportunity seeking behaviour relies heavily on the firm's ability to *ex-ante* exploit and/or to continue accessing resources *ex-post*. We rarely observe adaptation in an entrepreneurial context. That is because adaptation is primarily a strategic response, a *shaker*, vis-à-vis the entrepreneurially proactive *first mover* in the *external* product-market domain. By proposing the concept of entrepreneurial adaptation, we merge entrepreneurial proactiveness with strategic adaptation to comprehend entrepreneurship sustenance in resource constrained environments. However, the said proactiveness is directed towards the creation of more embedded and difficult

to imitate *internal* adaptive capabilities, while successful adaptation manifests as a *sustained state of growth and profitability* in a constraining *external* environment. In the EM, sustained entrepreneurship does not follow the *big bang* (Toms *et al.*, 2020) but the *slow and steady* approach, that focus on proactively building adaptive capabilities for sustainability, which we conceptualize as entrepreneurial adaptation.

Secondly, the content and configuration of EA reveals a process of *cognition and considerations* that drives proactive *actions* (H1: models M1a). SEC is the *brain* while AC represent the *brawn* of entrepreneurial adaptation process. As hypothesized in H1, the cognitive considerations (or choices) converge on the dimensions of *futurity, analysis* and *proactiveness* and contributed towards the firm's capabilities to adapt. It is noteworthy that this is to the exclusion of *aggressiveness, defensiveness*, and *riskiness* which are resource intensive strategic postures involving rapid market expansion via product-market route or price discount based competition. In uncertain markets, an aggressive market expansion or a risky product/service line expansion strategy or a discount based defensive posture is likely to backfire, depleting the financial slack and necessitating *ex-post* capital infusion. In contrast, *futurity and analysis* are less resource intensive, involve armchair predictive modelling and/or board room discussions.

Thirdly, entrepreneurial choices in EMs tend to be strategic such that capital needed for capability building is not squandered away in product-market rivalry. Also, as models M2a and M2b (H2a and H2b) suggest, non-market and organization related AC contribute towards performance with an aberration that market related AC significantly contributes for growth but not for profitability which is in line with our thinking that strategic choices in EMs may not be purely market focused. In most EMs, deregulation is a continuous process. It removes entry barriers, exposing local entrepreneurs to competition from financially strong corporations with a portfolio

of popular and innovative products (Chesbrough and Teece, 1998; Leifer *et al.*, 2000). Against these odds, local firms prioritize on building adaptive capabilities. Prior research suggests, local firms are aware of the excessive interferences by the politico-bureaucratic nexus (Faccio, 2006; Peng and Luo, 2000) and inherent weaknesses in the institutional framework (Dieleman and Boddewyn, 2012). They proactively allocate resources to tap into politico-bureaucratic nexus (Li *et al.*, 2008, Sheng *et al.*, 2011) which determines when and which industries to be phase wise deregulated, and societal changes that influences influencing consumption needs and social expectations[2]. This allows EM firms to gain critical information and exploit sectoral diversification-based growth. Thus, SEC made by EM firms aids them helps in adaptation and drive performance, as confirmed in models M3a-M3f (H3a and H3b).

There is evidence of crony capitalists, such as Reliance and Adani groups, emerging as leading industrialists by leveraging non-market related AC (Khatri and Ojha, 2017). It has been widely alleged that political ties have helped these business groups among others in securing lucrative government contracts, thus affecting their growth and profitability (Financial Times, 2020 for a detailed report on Adani group). These firms envisaging forthcoming changes, arising due to privatization/deregulation, and utilizing their allocated resources to develop their political capital have developed organizational capabilities to diversify into several industries thereby grow and sustaining their ventures.

Fourthly, complementing NMAC, firms in the EMs also recognize the concerted efforts and initiatives made by local government agencies to bring the BoP markets (Prahalad, 2005) within the mainstream (organized) economy. These markets are less lucrative for large corporations leaving space for local EM firms, who develop marketing and organizational adaptive

[2]Source:https://www.businesstoday.in/current/economy-politics/boycott-china-manifests-chinese-exports-to-india-crash-25-percent-in-2020-trade-down-19-percent/story/412435.html.

capabilities to gauge the true nature of demand and their capacity to supply in those markets. This can be undertaken by initiating internally consistent reconfigurations (Basu, 2014) within organization so that a fit can be attained with the challenges in these market conditions and at the same time by creating necessary distribution channels that can access those markets effectively (Ansari *et al.*, 2012; Basu *et al.*, 2021). Narayana Hrudayalaya Hospitals are known for providing low-cost cardiac surgery due to their large scale of operations. Its niche focus on BoP market has helped its founder Dr Devi Prasad Shetty to execute its non-market strategy and gain support from government agencies mainly in terms access to valuable land in all major cities around India. Dr Shetty has received several accolades[3], such as 'Outstanding Social Entrepreneurship Award' for his vision, mission and motivation to provide cardiac surgery to poor patients who cannot afford a suitable treatment elsewhere. His traits can be intuitively equated with futurity, analysis and proactiveness that has led him to develop non-market and organization related AC and drive growth of his noble chain of hospitals.

Alternatively, EM firms may complement the State's initiatives in these markets via public-private partnership. Either ways firms need to proactively build organization related AC to venture out and exploit these emerging growth opportunities and at the same time develop market related AC to subsequently engage the new set of non-traditional (BoP) consumers to eventually reap financial benefits therefrom. Literature suggests that large corporations should become entrepreneurial and build nimble subsidiaries to exploit emerging opportunities (Kanter, 1985). In the context of EM, we *observe the modus operandi* of how the nimbleness (organization and market related AC) can *still be fostered*, but when the financial and manpower support from the large parent corporation is absent. It is worthwhile to note that organization related AC does not

[3] Source:https://www.narayanahealth.org/leadership/board-of-directors/dr-devi-shetty

significantly contribute to profitability. Organizational reconfigurations, with an aim to venture into less lucrative markets, are often associated with rationalization and cost cutting exercises. These are normally captured in the books of account over a finite time period and hence, it is not a sustainable source of profit.

Finally, our study also indicates the strategic nature of entrepreneurial choices in the adaptation process. Assuming the existence of less lucrative (for large corporations) markets which are not out of bound for local EM firms, we find the entrepreneurial choices to most significantly (highest positive association) direct efforts towards building MAC followed by NMAC (models 3c and 3d respectively). However, MAC do not significantly contribute to profitability and growth while NMAC significantly contribute to both. We believe this to be an outcome of strategic cognition process involving carefully calibrated long term considerations that highlight the future scenario when politico-bureaucratic influences progressively give way to market forces in a fully deregulated economy. Thus, the focus on non-market AC is akin to *holding the fort*, while that towards organizational and market related AC tantamount to *forming and reinforcing the ranks and files*. On similar lines, we find that EM firms also focus on technology related AC but the same does not contribute to performance. It is possible that firms incur the cost for building technology related AC (e.g. buying technology than developing in-house) as a hygiene factor than to obtain competitive advantage. Alternatively, they may just invest enough to incrementally upgrade their existing products and services, thereby offset the commoditization effect, and protect their existing margins from inflationary pressures. Furthermore, most technology (or R&D) related investments are sunk costs (Martin, 1993; Stiglitz *et al.*, 1987) which consume entrepreneurial financial resources but do not guarantee commercially successful products. Even if the firms develop capabilities that can predict the possible trajectory of technological evolution, it is likely

that industry peers are also likely to eventually develop the same predictive capabilities or just wait for the technology to fully emerge and then step in. In EMs, more often than not, *local first movers lose out to global fast movers*, as the later bring economies of scale to bear (Lieberman and Montgomery, 1988; Nakata and Sivakumar, 1997). EM firms, burdened by financial constraints due to the non-availability of an entrepreneurial ecosystem or supportive financial institutions, lose out and swell the ranks of failed ventures. Alternatively, the very few fortunate ones end up being acquired (e.g. Daksh – IBM deal)[4] and becoming part of larger corporations, ending their entrepreneurial journeys. Therefore, we do not find evidence of entrepreneurial adaptation treading the path of technology related AC for sustained performance in emerging markets.

7. Conclusion, Limitation and Future Directions

In this research, we endeavoured to answer the intriguing issue of entrepreneurial sustenance in resource constrained and institutionally uncertain environment in the emerging markets. We relied on the middle-range theoretical approach whereby we observe the phenomenon of thriving entrepreneurship in EMs, abstracted the concept of entrepreneurial adaptation, and empirically verified the latter's significance and positive effect on sustenance. In the process, we also investigated the modus operandi of EA *via* its contents namely SEC and AC, and its internal process mechanism namely SEC leading to creation of specific dimensions of AC, which results in sustained performance. Our research nonetheless has some limitations and guidance for future research which are articulate below.

First and foremost, we used quantitative analysis on a cross sectional survey data to capture the mechanism of entrepreneurial adaptation where adaptation is considered an outcome, the final state of existence (Chakravarthy, 1982) of a long term evolutionary process. Although, our work

[4]Source:https://economictimes.indiatimes.com/tech/ites/after-ibm-daksh-concentrix-scouting-for-more-acquisitions/articleshow/26432800.cms.

reveals the process of adaptation in terms of SEC → AC → entrepreneurial sustenance, but there any many nuances in this process that cannot be captured *via* quantitative research design like ours. Future research can potentially use qualitative research methods to unearth these nuances that can add richness to our middle-range theory and extant knowledge on entrepreneurship in EMs.

Secondly and related to the issue of adaptation, we did not investigate how the capabilities *accumulate incrementally over a period of time*. But we focused on the necessary antecedent conditions and the choices exercised by entrepreneurial firms that lead to the creation of AC as an outcome. We also focused on why entrepreneurial firms choose to develop some dimensions of AC over other. Our preferences were guided by our theoretical approach. We observe entrepreneurship in the EM in its sustained state and therefore proceeded to theorize on its antecedent factors. We call for longitudinal research to investigate the emergence of the SEC and AC within the EA process. Also, we did not investigate the cause – effect relationship amongst the dimensions of SEC and AC. For example, we did not investigate whether NMAC precedes as a breather (holding the ford) to the subsequent development of marketing and organization related ACs (thus strengthening the ranks and files of the firm). Future research may wish to investigate the linkages amongst the different dimensions of AC and SEC.

Third, our sample comes from India which is one the largest emerging market but our findings are generalizable to other emerging economies, such as Brazil, Mexico, Nigeria, Indonesia, Russia, Turkey and South Africa, where similar degree of resource paucity and institutional uncertainties prevail, and institutional changes keep happening in the wake of gradual liberalization. Such conditions often invoke the process of entrepreneurial adaptation as the firm has to make SECs to build certain adaptive capabilities. Indeed, in certain contexts, such as South Korea, and China, which are debated for their status of emerging or already emerged economies,

the findings of our study need to be applied with caution. There is already an evidence that many firms in these economies, such as Samsung and Huawei, relies on technology related AC to drive their performance.

Finally, we did not separately include resource paucity and institutional uncertainties within our models as these concepts are inseparably embedded in our context. Our empirical settings did not allow for estimation of macroeconomic/institutional variables as these would apply uniformly to all firms. Modelling the environmental condition can improve/validate our theorization. Future research can use this opportunity to test our middle-range theory by collecting data from other EMs. Moreover, future research can be conducted at a different point in time, when a specific event jolts the entire economy, e.g. SARS-COVID-19 related economy wide lockdown. That way and using the same technique as above, we may observe the effect of environmental factors on entrepreneurial adaptation process and entrepreneurial sustenance.

References

Agarwal, N., Chakrabarti, R., Prabhu, J. C. and A. Brem (2020). 'Managing dilemmas of resource mobilization through jugaad: A multi-method study of social enterprises in Indian healthcare', *Strategic Entrepreneurship Journal*, **14**, pp. 419–443.

Ahammad, M.F., Basu, S., Munjal, S., Clegg, J. and O. B. Shoham (2021). 'Strategic agility, environmental uncertainties and international performance: The perspective of Indian firms', *Journal of World Business*, **56**, pp. 101218.

Akgün, A.E., Keskin, H. and J. Byrne (2012). 'Antecedents and contingent effects of organizational adaptive capability on firm product innovativeness', *Journal of Product Innovation Management*, **29**, pp. 171–189.

Alvarez, A. N. and L. P. Juang (2010). 'Filipino Americans and racism: A multiple mediation model of coping', *Journal of Counseling Psychology*, **57**, pp. 167–178.

Alvarez, S. A., Barney, J. B. and P. Anderson (2013). 'Forming and exploiting opportunities: The implications of discovery and creation processes for entrepreneurial and organizational research', *Organization Science*, **24**, pp. 301–317.

Ansari, S., Munir, K. and T. Gregg (2012). 'Impact at the 'Bottom of the Pyramid': The role of social capital in capability development and community empowerment', *Journal of Management Studies*, **49**, pp. 813–842.

Ansoff, H. I. (1965). *Corporate strategy: An analytic approach to business policy for growth and expansion*. Pelican library of business and management.

Armstrong, J. S. and T. S. Overton (1977). 'Estimating Nonresponse Bias in Mail Surveys',

Journal of Marketing Research, **14**, pp. 396–402.
Bao, Y., Wei, Z. and A. Di Benedetto (2020). 'Identifying the tacit entrepreneurial opportunity of latent customer needs in an emerging economy: The effects of experiential market learning versus vicarious market learning', *Strategic Entrepreneurship Journal*, **14**, pp. 444–469.
Baron, R. A. (1997). 'The sweet smell of... helping: Effects of pleasant ambient fragrance on prosocial behavior in shopping malls', *Personality and Social Psychology Bulletin*, **23**, pp. 498–503.
Basu, O. N., Dirsmith, M. W. and P. P. Gupta (1999). 'The coupling of the symbolic and the technical in an institutionalized context: The negotiated order of the GAO ' s audit reporting process', *American Sociological Review*, **64**, pp. 506–526.
Basu, S. (2014). 'Explicating the mechanism of BOP ventures: An architectural innovation perspective', *South Asian Journal of Management*, **21**, pp. 113–139.
Basu, S., Munjal, S., Malik, A. and D. Vrontis (2021). 'Investigating the causal configurations of cost-efficient firms at the bottom of the pyramid', *International Business Review*, pp. 101810.
Becker, J. M., Klein, K. and M. Wetzels (2012). 'Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models', *Long Range Planning*, **45**, pp. 359–394.
Bergen, M., Dutta, S. and O. C. Walker (1992). 'Agency relationships in Marketing: A review of the implications and applications of Agency and related theories', *Journal of Marketing*, **56**, pp. 1-24.
Bischoff, K. M., Gielnik, M. M. and M. Frese (2020). 'When capital does not matter: How entrepreneurship training buffers the negative effect of capital constraints on business creation', *Strategic Entrepreneurship Journal*, **14**, pp. 369–395.
Blanchflower, D. G. and A. J. Oswald (1998). 'What makes an entrepreneur?', *Journal of Labor Economics*, **16**, pp. 26–60.
Brannick, M. T., Chan, D., Conway, J. M., Lance, C. E. and P.E. Spector (2010). 'What is method variance and how can we cope with it? a panel discussion', *Organizational Research Methods*, **13**, pp. 407–420.
Bryant P. T. (2014). 'Imprinting by design: The microfoundations of entrepreneurial adaptation', *Entrepreneurship: Theory and Practice*, **38**, pp. 1081–1102.
Bu, J. and A. Cuervo-Cazurra (2020). 'Informality costs: Informal entrepreneurship and innovation in emerging economies', *Strategic Entrepreneurship Journal*, **14**, pp. 329–368.
Buckley, P. J., Munjal, S., Enderwick, P., & Forsans, N. (2016). Cross-border acquisitions by Indian multinationals: Asset exploitation or asset augmentation?, *International Business Review*, **25**, pp. 986-996.
Buzzell, R. D., Gale, B. T. and R. G. M. Sultan (1975). 'Market share: Key to profitability?', *Harvard Business Review*, **53**, pp. 97–106.
Bylund, P. L., & McCaffrey, M. (2017). A theory of entrepreneurship and institutional uncertainty. *Journal of Business Venturing*, 32(5), 461-475.
Capon, N., Farley, J. U. and S. Hoenig (1990). 'Determinants of financial performance: a Meta-Analysis', *Management Science*, **36**, pp. 1143–1159.
Chakrabarti A. (2015). 'Organizational adaptation in an economic shock: The role of growth reconfiguration', *Strategic Management Journal*, **36**, pp. 1717–1738.
Chakravarthy, B. S. (1982). 'Adaptation: A promising metaphor for strategic management', *Academy of Management Review*, **7**, pp. 35–44.
Chang, C. (2008). 'Chronological age versus cognitive age for younger consumers. Implications for advertising persuasion', *Journal of Advertising*, **37**, pp. 19–32.

Chesbrough, H. W. and D. J. Teece (1998). 'When is virtual virtuous? Organizing for innovation'. In Klein, D. A. (ed), *The strategic management of intellectual capital*. Boston: Butterworth-Heinemann Oxford, pp. 27–40.

Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1-22.

Child, J. (1997). 'Strategic choice in the analysis of action, structure, organizations and environment: Retrospect and prospect', *Organization Studies*, **18**, pp. 43–76.

Chittoor, R., Prashant, K. and P. Puranam (2015). 'Business groups in developing capital markets: Towards a complementarity perspective', *Strategic Management Journal*, **36**, pp. 1277–1297.

Chliova, M., Brinckmann, J. and N. Rosenbusch (2015). 'Is microcredit a blessing for the poor? A meta-analysis examining development outcomes and contextual considerations', *Journal of Business Venturing*, **30**, pp. 467–487.

Coltman, T., Devinney, T. M., Midgley, D. F. and S. Venaik (2008). 'Formative versus reflective measurement models: Two applications of formative measurement', *Journal of Business Research*, **61**, pp. 1250–1262.

Combe, I. A. and G. E. Greenley (2004). 'Capabilities for strategic flexibility: a cognitive content framework', *European Journal of Marketing*, **38**, pp. 1456–1480.

Conway, J. M. and C. E. Lance (2010). 'What reviewers should expect from authors regarding common method bias in organizational research', *Journal of Business and Psychology*, **25**, pp. 325–334.

Covin, J. G. and D. P. Slevin (1990). 'New venture strategic posture, structure, and performance: An industry life cycle analysis', *Journal of Business Venturing*, **5**, pp. 123–135.

De Carolis, D. M. (2003). 'Competencies and imitability in the pharmaceutical industry: An analysis of their relationship with firm performance', *Journal of Management*, **29**, pp. 27–50.

Dess, G. G. and D. W. Beard (1984). 'Dimensions of Organizational Task Environments', *Administrative Science Quarterly*, **29**, pp. 52–73.

Diamantopoulos, A. and J. A. Siguaw (2006). 'Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration', *British Journal of Management*, **17**, pp. 263–282.

Dieleman, M. and J. J. Boddewyn (2012). 'Using organization structure to buffer political ties in emerging markets: A case study', *Organization Studies*, **33**, pp. 71–95.

Doh, J. P., Lawton, T. C. and T. Rajwani (2012). 'Advancing nonmarket strategy research: Institutional perspective in a changing world', *Academy of Management Perspectives*, **26**, pp. 22–39.

Fabrigar, L. R., MacCallum, R. C., Wegener, D. T. and E. J. Strahan (1999). 'Evaluating the use of exploratory factor analysis in psychological research', *Psychological Methods*, **4**, pp. 272–299.

Faccio, M. (2006). 'Politically connected firms', *American Economic Review*, **96**, pp. 369–386.

Fennell, M. L. and J. A. Alexander (1987). 'Organizational boundary spanning in institutionalized environments', *Academy of Management Journal*, **30**, pp. 456–476.

Filatotchev, I., Wright, M., Uhlenbruck, K., Tihanyi, L. and R. E. Hoskisson (2003). 'Governance, organizational capabilities, and restructuring in transition economies', *Journal of World Business*, **38**, pp. 331–347.

Financial Times (2020), 'Modi's Rockefeller': Gautam Adani and the concentration of power in India, https://www.ft.com/content/474706d6-1243-4f1e-b365-891d4c5d528b, Accessed on 23rd July 2021.

Fodor, I. K. (2002). *A survey of dimension reduction techniques*, Lawrence Livermore National Lab*., CA (US)*. Vol. 18. DOI: 10.2172/15002155.

Foo, M. Der, Vissa, B. and B. Wu (2020). 'Entrepreneurship in emerging economies', *Strategic Entrepreneurship Journal*, **14**, pp. 289–301.

Gibson, C. B. and J. Birkinshaw (2004). 'The antecedents, consequences, and mediating role of organizational ambidexterity', *Academy of Management Journal*, **47**, pp. 209–226.

Guo, H., Xu, H., Tang, C., Liu-Thompkins, Y., Guo, Z., & Dong, B. (2018). Comparing the impact of different marketing capabilities: Empirical evidence from B2B firms in China. *Journal of Business Research*, **93**, pp. 79-89.

Gruber, M. (2007). 'Uncovering the value of planning in new venture creation: A process and contingency perspective', *Journal of Business Venturing*, **22**, pp. 782–807.

Hair, J. F., Ringle, C. M. and M. Sarstedt (2011). 'PLS-SEM: Indeed a silver bullet', *The Journal of Marketing Theory and Practice*, **19**, pp. 139–152.

Harrington, R. J., Lemak, D. J., Reed, R. and K. W. Kendall (2004). 'A question of fit: The links among environment, strategy formulation and performance', *Journal of Business and Management*, **10**, pp. 15–38.

He, Y., Tian, Z. and Y. Chen (2007). 'Performance implications of nonmarket strategy in China', *Asia Pacific Journal of Management*, **24**, pp. 151–169.

Hitt, M. A., Ireland, R. D., Camp, S. M. and D. L. Sexton (2001). 'Strategic entrepreneurship: entrepreneurial strategies for wealth creation', *Strategic Management Journal*, **22**, pp. 479–491.

Hitt, M. A., Ireland, R. D., Sirmon, D. G. and C. A. Trahms (2011). 'Strategic entrepreneurship: Creating value for individuals, organizations, and society', *Academy of Management Perspectives*, **25**, pp. 57–75.

Holburn, G. L. F. and R. G. Vanden Bergh (2014). 'Integrated market and nonmarket strategies: Political campaign contributions around merger and acquisition events in the energy sector', *Strategic Management Journal*, **35**, pp. 450–460.

Hoskisson, R. E. and L. W. Busenitz (2002). Market uncertainty and learning distance in corporate entrepreneurship entry mode choice in Hitt, M. A. (et. al,) eds *Strategic entrepreneurship: Crafting a new integrated mindset,* pp. 151-166. Oxford: UK. Blackwell Publishers

Hoskisson, R. E., Eden, L., Lau, C. M. and M. Wright (2000). 'Strategy in emerging economies', *Academy of Management Journal*, **43**, pp. 249–267.

Ireland, R. D., Hitt, M. A. and D. G. Sirmon (2003). 'A model of strategic enterpreneurship: The construct and its dimensions', *Journal of Management*, **29**, pp. 963–989.

Judge, W. Q. and C. P. Blocker (2008). 'Organizational capacity for change and strategic ambidexterity: Flying the plane while rewiring it', *European Journal of Marketing*, **42**, pp. 915–926.

Kanter, R. (1985). 'Supporting innovation and venture development in established companies', *Journal of Business Venturing*, **1**, pp. 47–60.

Khatri, N., and Ojha, A. (Eds.). (2017). Crony capitalism in India: establishing robust counteractive institutional frameworks. Springer.

Khanna, T. and K. G. Palepu (2010). *Winning in Emerging Markets: A Road Map for Strategy and Execution*. Boston: Harvard Business School Press Books.

Kumar, V., Kumar, U. and A. Persaud (1999). 'Building technological capability through importing technology: The case of Indonesian manufacturing industry', *Journal of Technology Transfer*, **24**, pp. 81–96.

Law, K. S., Wong, C. S. and W. H. Mobley (1998). 'Toward a taxonomy of multidimensional constructs', *Academy of Management Review*, **23**, pp. 741–755.
Lebusa, M. J. (2008). The prospects of fostering entrepreneurial customs in historically-disadvantaged schools in South Africa, *The International Journal of Learning: Annual Review*. DOI: 10.18848/1447-9494/cgp/v15i02/45637.
Leifer, R., McDermott, C. M., O'connor, G. C., Peters, L. S., Rice, M. P., Veryzer Jr, R. W. and others (2000). *Radical innovation: How mature companies can outsmart upstarts*. Harvard Business Press.
Levinthal, D. A. and J. G. March (1993). 'The myopia of learning', *Strategic Management Journal*, **14**, pp. 95–112.
Li, J. J., Poppo, L. and K. Z. Zhou (2008). 'Do managerial ties in China always produce value? Competition, uncertainty, and domestic vs. foreign firms', *Strategic Management Journal*, **29**, pp. 383–400.
Lieberman, M. B. and D. B. Montgomery (1988). First-mover advantages, *Strategic Management Journal*, **9**, pp. 41–58.
Lumpkin, G. T. and G. G. Dess (2001). 'Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle', *Journal of Business Venturing*, **16**, pp. 429–451.
Mair, J. and I. Marti (2009). 'Entrepreneurship in and around institutional voids: A case study from Bangladesh', *Journal of Business Venturing*, **24**, pp. 419–435.
Martin, S. (1993). *Advanced industrial economics. Solutions manual*. Blackwell.
Mathews, J. A. (2006). Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management*, 23(1), pp. 5-27.
McKee, D., Varadarajan, R. P. and W. M. Pride (1989). 'Strategic adaptability and firm performance: A market-contingent perspective', *Journal of Marketing*, **53**, pp. 21–35.
Mellahi, K., Frynas, J. G., Sun, P. and D. Siegel (2016). 'A review of the Nonmarket strategy literature: Toward a multi-theoretical integration', *Journal of Management*, **42**, pp. 143–173.
Meyer, A. D. (1982). 'Adapting to environmental jolts', *Administrative Science Quarterly*, **27**, pp. 515–537.
Meyer, J. W. and B. Rowan (1977). 'Institutionalized organizations : Formal structure as myth and ceremony', *American Sociological Review*, **83**, pp. 340–363.
Meznar, M. B. and D. Nigh (1995). 'Buffer or bridge ? Environmental and organizational determinants of public affairs activities in American firms', *Academy of Management Journal*, **38**, pp. 975–996.
Miles, R. D. and K. S. Cameron (1982). *Coffin nails and corporate strategies*. Englewood Cliffs, N.J.: Prentice-Hall, lnc.
Miles, R. E., Snow, C. C., Meyer, A. D. and H.J. Coleman (1978). 'Organizational strategy, structure, and process', *Academy of Management Review*, **3**, pp. 546–562.
Morgan, N. A., Slotegraaf, R. J. and D. W. Vorhies (2009). 'Linking marketing capabilities with profit growth', *International Journal of Research in Marketing*, **26**, pp. 284–293.
Nakata, C. and K. Sivakumar, (1997). 'Emerging market conditions and their impact on first mover advantages', *International Marketing Review*, **14**, pp. 461–486.
Naude, W., Gries, T., Wood, E. and A. Meintjies (2008). 'Regional determinants of entrepreneurial start-ups in a developing country', *Entrepreneurship and Regional Development*, **20**, pp. 111–124.
O'Cass, A. and L. V. Ngo (2007). 'Balancing external adaptation and internal effectiveness:

Achieving better brand performance', *Journal of Business Research*, **60**, pp. 11–20.
O'Shea, R. P., Allen, T. J., Chevalier, A. and F. Roche (2005). 'Entrepreneurial orientation, technology transfer and spinoff performance of U.S. universities', *Research Policy*, **34**, pp. 994–1009.
Oetzel, J. M. and S. G. Banerjee (2008). 'A case of the tortoise versus the hare? Deregulation process, timing, and firm performance in emerging markets', *International Business Review*, **17**, pp. 54–77.
Oktemgil, M. and G. Greenley (1997). 'Consequences of high and low adaptive capability in UK companies', *European Journal of Marketing*, **31**, pp. 445–466.
Peng, M. W., Au, K. Y. and D. Y. L. Wang (2001). 'Interlocking directorates as corporate governance in Third World multinationals: Theory and evidence from Thailand', *Asia Pacific Journal of Management*, **18**, pp. 161–181.
Peng, M. W. and Y. Luo (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link, *Academy of Management Journal*, **43**, pp. 486–501.
Perez, L. G., Abrams, M. P., Lopez-Martinez Alicia E and G. J. G. Asmundson (2012). Trauma exposure and health: The role of depressive and hyperarousal symptoms, *Journal of Traumatic Stress*, **25**, pp. 641–648.
Podsakoff, P. M., Mackenzie, S. B., Lee, J. and N. P. Podsakoff (2003). 'Common method biases in behavioral research : A critical review of the literature and recommended remedies', *Journal of Applied Psychology*, **88**, pp. 879–903.
Prahalad, C. (2005). *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*, *Pearson Education, Inc*. DOI: 10.1017/CBO9781107415324.004.
Preacher, K. J. and A. F. Hayes (2008). 'Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models', *Behavior Research Methods*, **40**, pp. 879–891.
Rindova, V. P. and S. Kotha (2001). 'Continuous "Morphing": Competing through dynamic capabilities, form, and function', *Academy of Management Journal*, **44**, pp. 1263–1280.
Rosenfeld, J. D. . (1984). 'Additional evidence on the relation between divestiture announcements and shareholder wealth', *The Journal of Finance*, **39**, pp. 1437–1448.
Ruekert, R. W. and O. C. Walker (1987). 'Marketing's interaction with other functional units: A conceptual framework and empirical evidence', *Journal of Marketing*, **51**, pp. 1–19.
Sheng, S., Zhou, K. Z. and J. J. Li (2011). 'The effects of business and political ties on firm performance: Evidence from China', *Journal of Marketing*, **75**, pp. 1–15.
Shirokova, G., Osiyevskyy, O., Laskovaia, A. and H. Mahdavi Mazdeh (2020). 'Navigating the emerging market context: Performance implications of effectuation and causation for small and medium enterprises during adverse economic conditions in Russia', *Strategic Entrepreneurship Journal*, **14**, pp. 470–500.
Staber, U. and J. Sydow (2002). 'Organizational adaptive capacity: A structuration perspective', *Journal of Management Inquiry*, **11**, pp. 408–424.
Stam, W. and T. Elfring (2008). 'Entrepreneurial orientation and new venture performance: The moderating role of intra and extra industry social capital', *Academy of Management Journal*, **51**, pp. 97–111.
Stiglitz, J. E., McFadden, D. and S. Peltzman (1987). 'Technological change, sunk costs, and competition', *Brookings Papers on Economic Activity*, **1987**, pp. 883–947.
Strong, C. A. and R. E. Morgan (2003). 'Business performance and dimensions of strategic orientation', *Journal of Business Research*, **56**, pp. 163–176.

Tae, C. J., Luo, X. and Z. Lin (2020). 'Capacity-constrained entrepreneurs and their product portfolio size: The response to a platform design change on a Chinese sharing economy platform', *Strategic Entrepreneurship Journal*, **14**, pp. 302–328.
Tallon, P. P. (2008). 'Inside the adaptive enterprise: An information technology capabilities perspective on business process agility', *Information Technology and Management*, **9**, pp. 21–36.
Teece, D.J., Pisano, G. and A. Shuen (1997). 'Dynamic capabilities and strategic management', *Strategic Management Journal*, **18**, pp. 509–533.
Teece, David J. (2012). 'Dynamic capabilities: Routines versus entrepreneurial action', *Journal of Management Studies*, **49**, pp. 1395–1401.
Toms, S., Wilson, N. and M. Wright (2020). 'Innovation, intermediation, and the nature of entrepreneurship: A historical perspective', *Strategic Entrepreneurship Journal*, **14**, pp. 105–121.
Tracey, P. and N. Phillips (2011). 'Entrepreneurship in emerging markets strategies for new venture creation in uncertain institutional contexts', *Management International Review*, **51**, pp. 23–39.
Tuominen, M., Rajala, A. and K. Möller (2004). 'How does adaptability drive firm innovativeness?', *Journal of Business Research*, **57**, pp. 495–506.
Venkatraman, N. (1989). 'Strategic orientation of business enterprises: The construct , dimensionality, and measurement', *Management Science*, **35**, pp. 942–962.
Venkatraman, N. and J. C. Camillus (1984). 'Exploring the concept of "Fit" in Strategic Management', *Academy of Management Review*, **9**, pp. 513–525.
Walter, A., Auer, M. and T. Ritter (2006). 'The impact of network capabilities and entrepreneurial orientation on university spin-off performance', *Journal of Business Venturing*, **21**, pp. 541–567.
Wang, C. L. and P. K. Ahmed (2007). 'Dynamic capabilities: A review and research agenda', *International Journal of Management Reviews*, **9**, pp. 31–51.
Wilden, R. and S. P. Gudergan (2015). 'The impact of dynamic capabilities on operational marketing and technological capabilities: investigating the role of environmental turbulence', *Journal of the Academy of Marketing Science*, **43**, pp. 181–199.
Woo, C. Y., Willard, G. E. and U. S. Daellenbach (1992). 'Spin-Off performance : A case of overstated expectations,, *Strategic Management Journal*, **13**, pp. 433–447.
Wright, M. and M. A. Hitt (2017). 'Strategic entrepreneurship and SEJ: Development and current progress', *Strategic Entrepreneurship Journal*, **11**, pp. 200–210.
Wu, X. and L. L. Xu (2005). 'The value information of financing decisions and corporate governance during and after the Japanese deregulation', *Journal of Business*, **78**, pp. 243–280.
Yan, A. and M. R. Louis (1999). 'The migration of organizational functions to the work unit level: Buffering, spanning, and bringing up boundaries', *Human Relations*, **52**, pp. 25–47.
Yan, Y., Zhang, S. H. and F. Zeng (2010). 'The exploitation of an international firm's relational capabilities: An empirical study', *Journal of Strategic Marketing*, **18**, pp. 473–487.
Yusuf, Y. Y., Gunasekaran, A., Adeleye, E. O. and K. Sivayoganathan (2004). 'Agile supply chain capabilities: Determinants of competitive objectives', *European Journal of Operational Research*, **159**, pp. 379–392.
Zahra, S. A. (1996). 'Technology strategy and financial performance: Examining the moderating role of the firm's competitive environment', *Journal of Business Venturing*, **11**, pp. 189–219.
Zellner, A. (1963). 'Estimators for Seemingly Unrelated Regression Equations : Some exact finite

sample results', *Journal of the American Statistical Association*, **58**, pp. 977–992.
Zheng, W., Singh, K. and W. Mitchell (2015). 'Buffering and enabling: The impact of interlocking political ties on fir survival and sales growth', *Strategic Management Journal*, **36**, pp. 1615–1636.
Zhou, J., Ge, L. G., Li, J. and S. P. Chandrashekar (2020). 'Entrepreneurs' socioeconomic status and government expropriation in an emerging economy', *Strategic Entrepreneurship Journal*, **14**, pp. 396–418.
Zhou, K. Z. and C. B. Li (2010). 'How strategic orientations influence the building of dynamic capability in emerging economies', *Journal of Business Research*, **63**, pp. 224–231.

Appendix 1: Indicators used to Measure SEC, AC and Firm Performance.

Dimension	Items
3 Dimensions of Strategic Entrepreneurial Choices (adopted from *Venkatraman, 1989*)	
Analysis	We emphasize effective coordination among different functional areas of our firm
	Our information systems provide support for decision making
	When confronted with a major decision, we usually try to develop thorough analysis
	We use several planning techniques
	We use the outputs of management information and control systems
	We commonly use manpower planning and performance appraisal of senior managers
Futurity	Our criteria for resource allocation generally reflect short-term considerations
	We emphasize basic research to provide us with future competitive edge
	Forecasting key indicators of operations is common in our firm
	Formal tracking of significant general trends is common in our firm
	We often conduct *what if* analyses of critical issues (i.e. the process of determining the impact on outcome through systematic variations in input)
Proactiveness	We are constantly seeking new opportunities related to present operations
	We are usually the first ones to introduce new brands or products in the market
	We are constantly on the lookout for businesses that can be acquired
	Our competitors generally preempt us by expanding capacity ahead of them
	Our operations in later stages of the life cycle are strategically eliminated
4 Dimensions of Adaptive Capabilities	
Technological Adaptive Capabilities (adopted from *Akgun et al,* 2012)	We have ability to capture technical capabilities
	We have ability to monitor technical changes
	We have ability to get access to desired technologies
	We have ability to achieve technical complementarity
	We have ability to avert potential risks arising out of technological changes
Organizational Adaptive Capabilities (adopted from *Akgun et al,* 2012 and Gibson & Birkinshaw, 2004)	he management systems in our organization encourage people to challenge outmoded traditions/practices/sacred cows
	The management systems in our organization are flexible enough to allow us to respond quickly to changes in the markets
	The management systems in our organization evolve rapidly in response to shifts in our business priorities

Marketing Adaptive Capabilities (adopted from *Oktemgil and Greenley, 1997*)	We regularly monitor changes in our markets
	We frequently adopt new marketing techniques
	We continuously monitor competitors' actions
	We allocate a substantial part of our resources to marketing practices
	We give close attention to after-sales service
Non-Market Adaptive Capabilities ((adopted from He et. al*, 2007*)	Our firm can predict the change trend of public policy
	Our firm can adapt to the change of public policy quickly
	Our firm can predict the change of social expectation
	Our firm can meet the social expectation quickly
2 Dimensions of Firm Performance (adopted from *Venkatraman, 1989*)	
Growth	Our firm's sales growth position *relative* to our competitors, is strong
	We are satisfied with our firm's sales growth rate
	Our firm's market share gains *relative* to our competitors is better
Profitability	We are satisfied with our firm's return on corporate investment
	Our firm's net profit position *relative* to our competitors is strong
	Our firm's return on investment position *relative* to our competitors is strong
	We are satisfied with our firm's return on sales
	Our firm's financial liquidity position *relative* to our competitors is strong

Figure 1: Conceptual Model

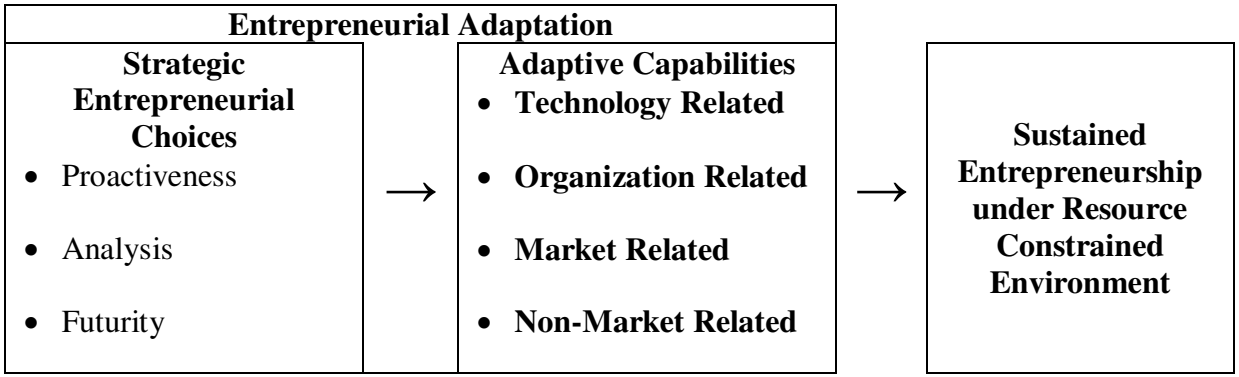


Figure 2a: Mediation Effect of Adaptive Capabilities on Strategic Entrepreneurial Choices and Firm Performance (Growth) Linkages

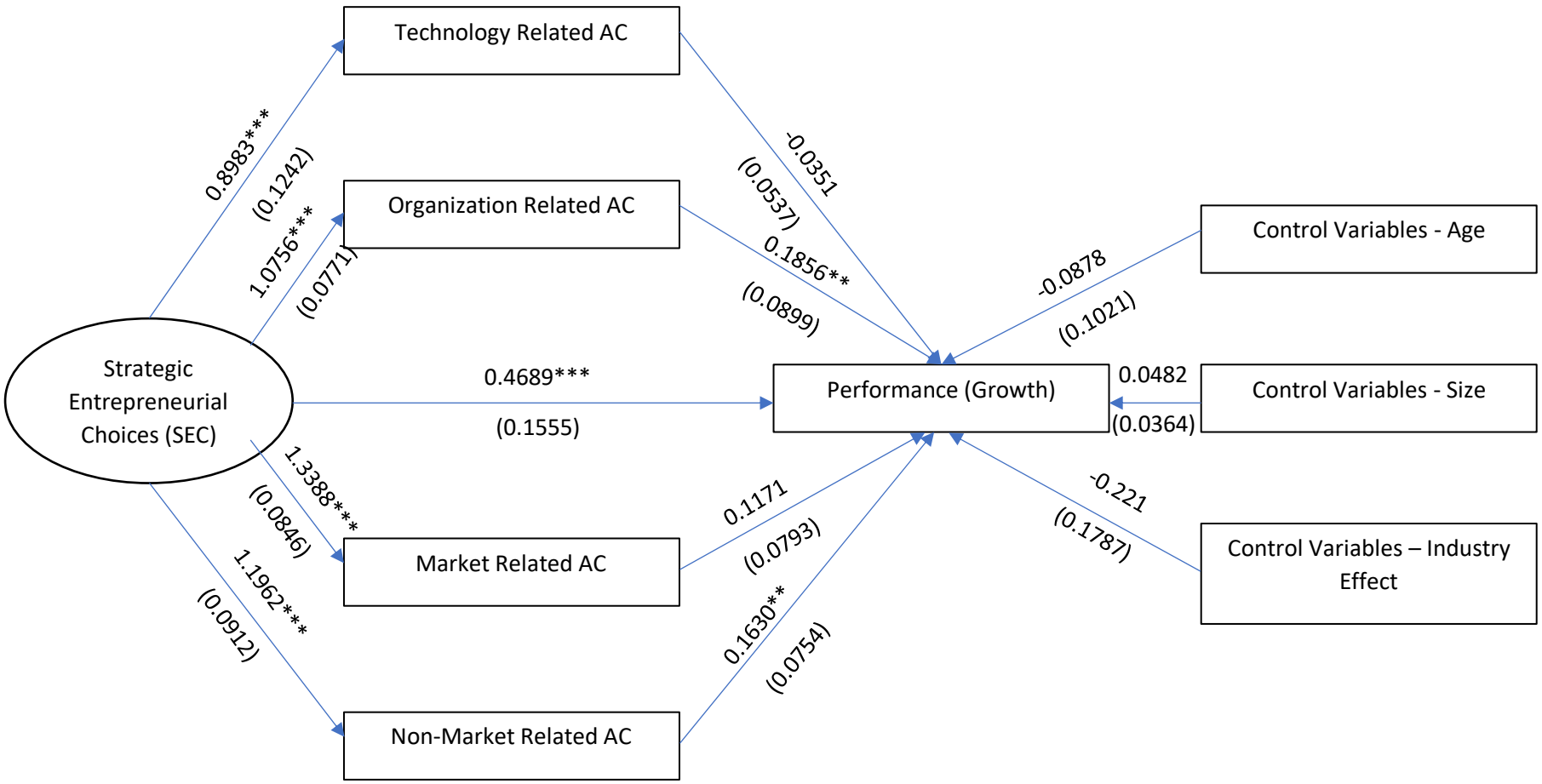
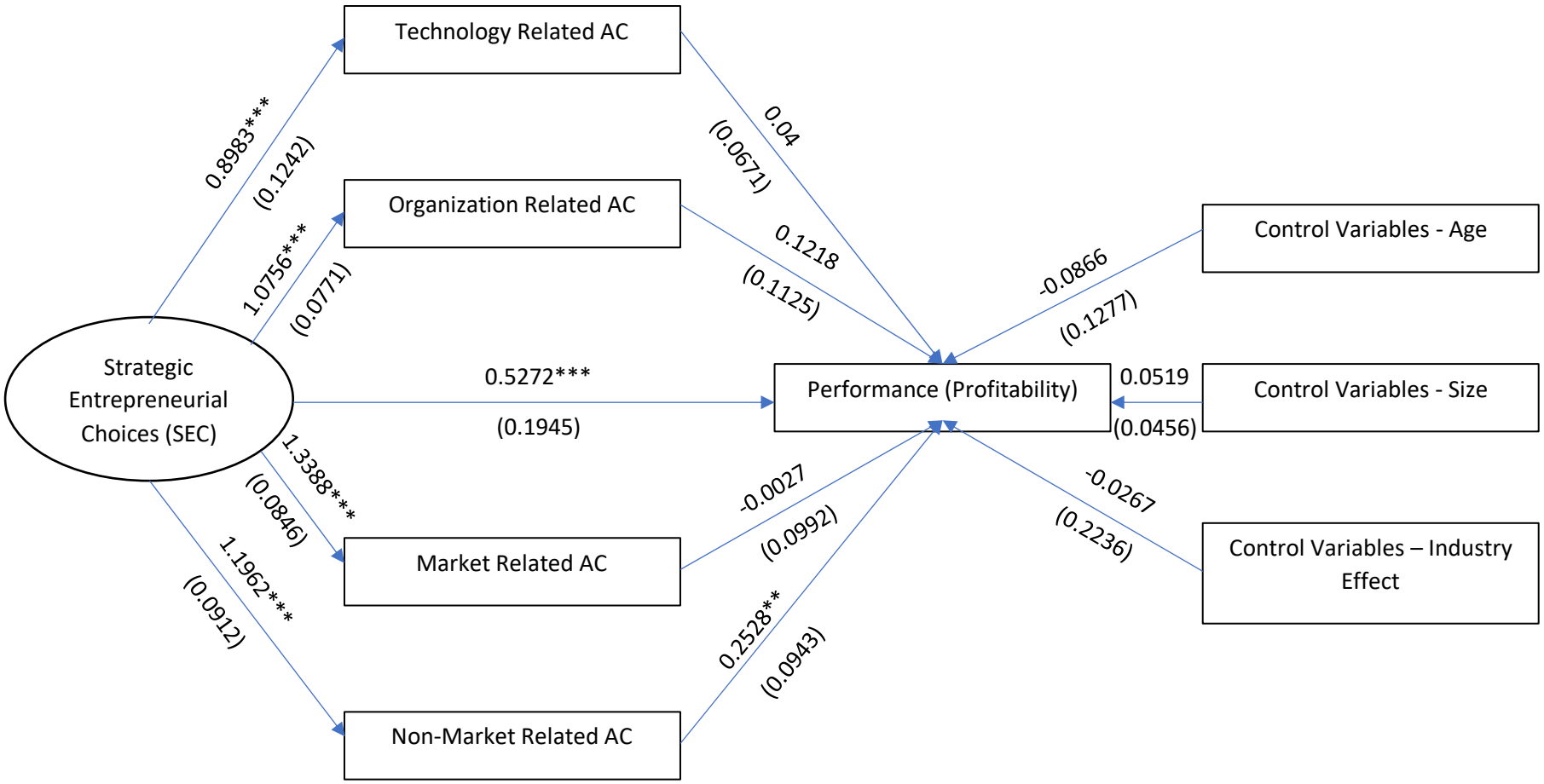


Figure 2b: Mediation Effect of Adaptive Capabilities on Strategic Entrepreneurial Choices and Firm Performance (Profitability) Linkages



Note: The figures on the top represents coefficients while those within parentheses are the standard errors. Coefficient along arrows from SEC to AC correspond to model M3a-M3d and coefficients along arrows directed towards performance correspond to model M3e-M3f.

Table – I: Sample Characteristics

Level of Key Respondent		**Representation (%)**
CEO/Directors/Founders		51%
Presidents/VP/AVP/GMs		24%
DGMs/AGMs/Managers		25%
Size of Firm	**No. Of Employees**	**Representation (%)**
Large	Greater than 500	43
Medium	Between 100 and 500	22
Small	Between 10 and 99	29
Micro	Less than 10	6
Age of Firm (in Years)		**Representation (%)**
Greater than 20 Years		50
Between 19 and 10 years		28
Between 9 and 5 years		10
Less than 5 years		13
Annual Sales Turnover (In Indian Rupees (Crores=10 million))		**Representation (%)**
>10000		10
<10000		13
<1000		19
<100		28
<10		15
<1		7
Did not disclose		7
Industry Category		**Representation (%)**
Auto		9
Banking/Financial		5
Chemical and fertilizer		5
Capital goods/Engineering		10
IT/ITEs/E-commerce		20
Steel/metal		6
Telecommunication		6
Textile		3
Pharmaceutical/FMCG		6
Electrical		2
Energy		6
Infra/Construction/Cement		4
Others		18
Average Response Time		**20 minutes**

(**Note:** The OECD criteria (2010) are used to categorize firms into small, medium and large enterprises.)

Table – II: Descriptive Statistics and Pearson's Correlations Matrix

Variables	Mean	Std. Dev.	Age	Size	Ind Effect	STA	SOA	SMA	SNMA	SAG	SAN	SDEF	SFUT	SPRA	SRSK	SGR	SPRO
Control Variables																	
Age	2.854	1.069	1.000														
Size	6.157	2.935	.542***	1.000													
Ind_Effect	0.475	0.501	-.205***	0.104	1.000												
Adaptive Capabilities																	
TAC	4.929	0.843	0.006	.147**	0.002	1.000											
OAC	3.704	0.908	-0.027	-0.031	-0.053	.363***	1.000										
MAC	3.528	0.776	-0.041	0.019	0.056	.324***	.514***	1.000									
NMAC	3.234	0.718	0.053	-0.011	-0.013	.353***	.634***	.567***	1.000								
Strategic Entrepreneurial Choices																	
SAG	3.185	0.970	-0.087	-0.068	-0.102	.199***	.141**	.210***	.178***	1.000							
SAN	4.329	0.760	0.032	-0.025	-0.087	.431***	.653***	.538***	.574***	.201***	1.000						
SDEF	3.496	0.699	.173**	0.097	-.223***	.323***	.332***	.481***	.371***	.254***	.502***	1.000					
SFUT	1.827	0.396	0.054	0.043	0.007	.212***	.332***	.293***	.289***	-0.030	.339***	.223***	1.000				
SPRA	2.276	0.412	0.022	-0.042	-0.053	.262***	.400***	.378***	.328***	0.093	.404***	.299***	.237***	1.000			
SRSK	2.421	0.509	0.070	0.074	0.055	-0.080	-0.022	0.021	0.042	0.010	0.017	0.006	0.063	0.114	1.000		
Firm Performances																	
SGR	3.374	0.892	0.022	0.036	-0.065	.259***	.456***	.460***	.487***	0.065	.443***	.320***	.250***	.331***	0.001	1.000	
SPRO	3.671	0.964	0.029	0.057	-0.004	.293***	.439***	.367***	.477***	0.027	.397***	.249***	.303***	.225***	-0.040	.751***	1.000
N = 219	***. significant at the 0.01 level; **. significant at the 0.05 level and *. significant at the 0.1 level (All 2 tailed).																

Table -III – Multivariate Regressions Testing Hypothesis H1 and H2

VARIABLES	Adaptive Capabilities **Model M1a**	Growth **Model M1b**	Profitability **Model M1c**	Growth **Model M2a**	Profitability **Model M2b**	Growth **Model M2c**	Profitability **Model M2d**
Strategic Entrepreneurial Choices (SEC)	0.791*** (0.041)	0.881*** (0.093)	0.993*** (0.117)			0.461*** (0.151)	0.475** (0.189)
Adaptive Capabilities (AC)						0.532*** (0.152)	0.655*** (0.191)
Age	-0.072 (0.044)	-0.114 (0.101)	-0.108 (0.127)	-0.034 (0.102)	-0.027 (0.128)	-0.076 (0.099)	-0.061 (0.125)
Size	0.012 (0.016)	0.049 (0.036)	0.059 (0.045)	0.038 (0.037)	0.040 (0.046)	0.042 (0.035)	0.051 (0.044)
Industry Effect	0.012 (0.08)	-0.204 (0.182)	-0.024 (0.228)	-0.229 (0.182)	-0.036 (0.227)	-0.21 (0.177)	-0.032 (0.223)
Technology related Adaptive Capabilities (TAC)				-0.018 (0.054)	0.059 (0.066)		
Organizational related Adaptive Capabilities (OAC)				0.174** (0.086)	0.218** (0.107)		
Marketing related Adaptive Capabilities (MAC)				0.218*** (0.072)	0.114 (0.089)		
Non-market related Adaptive Capabilities (NMAC)				0.215*** (0.074)	0.310*** (0.092)		
Constant	0.125 (0.123)	0.123 (0.281)	-0.042 (0.352)	-0.026 (0.086)	-0.154 (0.106)	0.056 (0.274)	-0.124 (0.344)
Observations	219	219	219	219	219	219	219
R-squared	0.636	0.299	0.255	0.311	0.276	0.337	0.294

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE – IV: Multiple Parallel Mediation Analysis Using Process Models Model M3a and M3b

VARIABLES	TAC	OAC	MAC	NMAC	Growth	Profitability	Growth	Profitability
	Model M3a	**Model M3b**	**Model M3c**	**Model M3d**	**Model M3e**	**Model M3f**	**Robustness Test**	
							Model M4a	**Model M4b**
Age	-0.299*** (0.133)	-0.144* (0.083)	-0.247*** (0.091)	0.029 (0.098)	-0.0878 (0.1021)	-0.0866 (0.1277)	-0.114 (0.101)	-0.108 (0.127)
Size	0.156 (0.048)	0.029 (0.030)	0.044 (0.032)	-0.011 (0.035)	0.0482 (0.0364)	0.0519 (0.0456)	0.049 (0.036)	0.059 (0.045)
Industry Effect	-0.164 (0.240)	-0.048 (0.149)	0.047 (0.163)	0.061 (0.176)	-0.221 (0.1787)	-0.0267 (0.2236)	-0.204 (0.182)	-0.024 (0.228)
Entrepreneurial Adaptation							1.123*** (0.119)	1.265*** (0.149)
Strategic Entrepreneurial Choices – (Indirect Effect)	0.898*** (0.124)	1.076*** (0.077)	1.339*** (0.084)	1.196*** (0.091)				
Strategic Entrepreneurial Choices (SEC) – (Direct effect)					0.4689*** (0.1555)	0.5272*** (0.1945)		
Technology related AC (Indirect Effect)					-0.0351 (0.0537)	0.04 (0.0671)		
Organizational related AC (Indirect Effect)					0.1856** (0.0899)	0.1218 (0.1125)		
Marketing related AC (Indirect Effect)					0.1171 (0.0793)	-0.0027 (0.0992)		
Non-market related AC (Indirect Effect)					0.1630** (0.0754)	0.2528*** (0.0943)		
Constant	-0.029 (0.369)	0.258 (0.229)	0.413 (0.252)	-0.047 (0.271)	0.587 (0.2779)	-0.0593 (0.3477)	0.123 (0.281)	-0.042 (0.352)
Observations	219	219	219	219	219	219	219	219
R-squared	0.221	0.477	0.541	0.448	0.3401	0.3006	0.2991	0.2545

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1,
Output adopted from SPSS-V.23, Process Macro V.3.4