



Resource integration and dynamic capability of frontline employee during COVID-19 pandemic: From value creation and engineering management perspectives

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ABSTRACT

The cornerstone of any successful organizations is the frontline employees. Frontline employees (FLEs) are always in action at the frontline of the business. They do not operate from the office space or from the corporate setting. Frontline employees directly interact with their customers. During the COVID-19 pandemic, many frontline employees experienced numerous challenges as most of the places there were full or partial lockdown imposed by the government agencies and the frontline employees could not be able to directly connect with their customers. Not many studies are there which investigated the issue of resource integration, dynamic capabilities, and engineering management abilities of the frontline employees such as technological capability, emotional intelligence, and psychological capability which perceived to influence the frontline employee adaptability and organization performance. In this background, the purpose of this study is to examine the relationship between frontline employee adaptability and organization performance during COVID-19 pandemic from technological, emotional, and psychological perspectives. With the help of dynamic capability view and different adaptability theories, a theoretical model has been developed conceptually. Later the conceptual model has been validated using partial least square – structural equation modeling technique considering 412 respondents from frontline employees of different organizations in Asia and EMEA. The study found that frontline employees' dynamic capabilities and engineering management abilities significantly and positively impact employee adaptability which in turn impact the performance of the organization mediating through employee job satisfaction and employee performance.

1. Introduction

In the competitive market environment, several organizations have been facing enhanced business complexity to derive better performance (Schrage et al., 2019). As per the 2021 global human capital trends (Deloitte Report, 2021), 80% of the organizations said there is an employee readiness gap to address any turbulent situation and worker well-being is also very important to them. Only, 12% of organizations said their employees are fully ready to address any turbulent situation. It has been felt that review of the performance of the employees is perhaps the only treatment of this ailment (Coens and Jenkins, 2002). To

ameliorate retention, engagement, and performance of the employees, system of providing constructive feedback of the performance of the employees has been considered as a universal management practice (Zhang, 2017; Yohn, 2019). On being appraised about their performances, the employees' motivation and contribution to the work output could be enhanced (Jung et al., 2010). The process of performance review of the employees for ensuring success to the organizations is a widely accepted management process for a long time. From earlier days, this system was in vogue in United States for assessing the employee skills, expertise, and adaptability (Buckingham and Goodall, 2019). Extant literature is enriched with numerous studies in this respect (De

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Nisi et al., 2017). Such being the magical medicine for improving the overall performance of the employees helpful for the organizational success, much emphasis is needed to be given on improving the adaptability of the employees especially for the frontline employees (FLEs) whose contributions towards organizational success are considered vital factor for the success of the organization (Frandsen and Morsing, 2021; Alraja, 2022). FLEs are found to be always active at the frontline of the businesses of an organization. The FLEs are found not to operate from the corporate settings or from the office space (Ghlichlee, and Bayat, 2021). These employees are found to take leading role in times of crisis, disruption, and transition. The scholars and practitioners are involved in investigating how the FLE's critical abilities could address the fast-changing market environments and how the FLEs could navigate the entangled challenges of unpredictable dynamic market as well as social and cultural disruptions (Sedeghi, and Terum, 2020). The FLEs are always found to directly interact with the customers and establish a bridge of connection between the organizations and their potential customers. These activities of the FLEs help to facilitate and promote the organizations to create values (Tantalo, and Priem, 2016; Lee, and Yoo, 2021). During the COVID-19 pandemic, organizations had to face severe disruptions towards sales activity. In such apocalyptic situation, for sustenance of an organization, the role of the FLEs becomes vital since those employees closely interact with the potential customers. Organizational success is perceived to depend on the adaptability of the FLEs and it is known to have impacted organizational outcomes like job satisfaction and performance of the FLEs (Cullen et al., 2013; Eachempati et al., 2022). An adaptable FLE is considered as an asset for both the organizations and the customers since it impacts performance of the organizations as well as satisfaction of the customers (Clark, 2000; Chebat and Kollias, 2000; Keillor et al., 2011; Nesbit and Lam, 2014; Kazancoglu et al., 2021; Jung et al., 2021). Since the FLEs are close to the customers, proximity to the customers is often concerned with the emotional distress and handling the emotions is considered as an important factor for the success of the FLEs (Shih-Tse Wang, 2014). Emotional intelligence capability of the FLEs is considered as a significant factor for the FLEs' overall performance (Prentice and King, 2011; 2013). FLEs are found to create satisfaction and loyalty of the customers since the FLEs are responsible to keep the promises for the organizations (Gronroos, 2020). The role of FLEs is important since they provide feedback to the organizations and their inputs are important for the organizations (Markey et al., 2009). Thus, the researchers emphasize that FLEs need more training and recognition for increasing their effectiveness to make them psychologically and technologically more productive (Leaman, 2018). Again, among different factors, FLEs' technological ability, emotional intelligence, and psychological ability are found to adjust them to the dynamic changes of the business environments (Ke et al., 2021; Sedeghi, and Terum, 2020). These abilities also help FLEs to respond and react quickly according to the changes in the business environment (Ahearne et al., 2013). These abilities are considered as dynamic capabilities of the FLEs to make them adaptable so that they can address any unpredictable situation like COVID-19 pandemic. Extant literature is found exhaustive in investigating the FLEs' several abilities including technological, emotional, and psychological competencies for adjusting the dynamic changes in the business environment (Ke et al., 2021; Scheghi and Terum, 2020). Also, studies are available where abilities of FLEs have been analyzed in the context of providing feedback to the organizations (Markey et al., 2009). But studies covering how technological, emotional intelligence, and psychological capabilities of the FLEs could impact FLE adaptability mediating through job satisfaction and employee performance to address the apocalypse situation due to COVID-19 pandemic are in rudimentary stage. In such background, the aim of this study is to address the following research questions (RQs).

RQ1: What is the role of frontline employee (FLE) adaptability to improve the organization performance, value creation especially during any turbulent situation like COVID-19 pandemic?

RQ2: How engineering management capabilities such as technological, emotional, and psychological abilities of the frontline employee (FLE) influence the employee adaptability during any turbulent situation like COVID-19 pandemic?

The research questions strive to investigate how the adaptability of FLEs could be improved so that they are able to address any apocalyptic situation like COVID-19 pandemic and to investigate how several dynamic capabilities like technological, emotional, and psychological ability could impact FLE adaptability. In this perspective, the research questions have been addressed by the analysis of data collected from a sample of 412 respondents by using factor-based PLS-SEM technique. For theoretically corroborating the empirical results, individual adaptability theory (Ployhart and Bliese, 2006) and dynamic capability view (DCV) theory (Teece et al., 1997) have been integrated since neither perspective could on its own interpret the contribution of frontline employee adaptability and the predictors of the adaptability of FLEs of organizations. The reminder of the article is organized as follows. Section 2 presents the literature review followed by the theoretical underpinning and hypotheses development in Section 3. Next, Section 4 presents research methodology. Thereafter, the Section 5 presents the analysis of data and results followed by discussion, implications, along with limitations and scope for future research in section 6.

2. Literature review

Emotional intelligence is considered as an important predictor of organizational outcomes though job-related emotions remain an under explored area of study (Bande et al., 2015). Adaptability of FLEs is considered as a critical factor influencing organizational outcomes like performance and job satisfaction (Cullen et al., 2013). An adaptable FLE is considered as an important asset of an organization (Chebat and Kollias, 2000) and the customers (Ahearne et al., 2005) since adaptability of FLEs is known to have impacted performance of the organizations (Cullen et al., 2014) as well as customer satisfaction (Keillor et al., 2011). FLEs' effectiveness instrumental on their technological and psychological activities helps the organizations to perform better (Kafetsios and Zampetakis, 2008; Alraja, 2022). FLE adaptability encompasses various new dimensions which include interpersonal service offerings, job satisfaction, FLE performance, and so on (Sony and Nandakumar, 2014). FLEs are found to function in various ways and are often found to require stepping outside of their typical roles to help the potential customers (Wang et al., 2020), differentiate brand (Sirianni et al., 2013), and improve recovery service (van der Heijden et al., 2013). Organizations are reported to have spent millions of dollars to properly train and develop the capability of FLEs, but still there remains variation in their performance level (Statistica, 2020). Studies as to why such variation of performance exists are found to be limited (Sonenshein and Dholakia, 2012). It is argued that performance levels of the FLEs vary due to their adaptability level predicted by their dynamic abilities including psychological, technological, and emotional intelligence capabilities which are in consonance with DCV theory (Teece et al., 1997). Moreover, the global emergency caused due to COVID-19 pandemic continues to be a great challenge ever faced by the FLEs of organizations (Belanche et al., 2020; Lee, and Yoo, 2021). Recent research (Seo et al., 2020) has documented that COVID-19 outbreak has affected the employees' wellbeing by impacting on their mental health. Another study (Busch et al., 2021) demonstrated that the abrupt outbreak of COVID-19 pandemic has adversely affected the mental health of the FLEs. Hence, to address these crises, the FLEs must develop their overall abilities to cope with such situation. Besides, the FLEs must update their technological abilities so that they can combat any

apocalyptic situation to make the business flow of the organization active (Orru et al., 2021). Several studies are there covering organizational and work-loaded factors of the FLEs during any crisis (Contreras et al., 2020; Jung et al., 2021), but the role of individual factors concerning FLEs such as personal resources is found to be under studied especially in any epidemic or in pandemic situation (Hobfoll, 2002; Britt et al., 2021). The present study has focused on this point. This present research study enriches the studies on the personal abilities of the FLEs to develop their adaptability for ensuring better organizational performance which are found to have been less investigated (Zito et al., 2018; Contreras et al., 2020). Studies are there which investigated how the different abilities of the FLEs could help them to adjust with the rapid dynamic changes in the volatile market (Ke et al., 2021). Also, studies have documented how the firms' performance could be improved with the feedback of the FLEs who gathered such inputs from the potential customers (Markey et al., 2009). However, extant literature is found silent on investigating how during apocalyptic situation like COVID-19 pandemic, the adaptability of the FLEs could address the issue of business continuity during such turbulent situation to improve the firm performance.

3. Theoretical underpinning and development of conceptual model

3.1. Theoretical underpinning

FLE adaptability has been defined as “the frontline employee exhibiting interpersonal, service offering, political, social, physical, group, and organizational adaptive behavior (attributes) as per the demands or requirement of stakeholders, environment, event, or a new situation (focal object)” (Sony and Nandakumar, 2014, p.240). Adaptability can be viewed from various contexts (Van Dam, 2013). Broader interpretation of adaptive performance is associated with exhibiting such behavior which can address the demands of the event, environment, or new situation (Pulakos et al., 2000). In terms of individual adaptable theory (I-ADAPT) (Ployhart and Bliese, 2006), it is conceptualized that individual adaptability presents an ability, skill, willingness, disposition, and motivation for being able to adjust any dynamic situation. This theory posits that being adaptable is essential since it showcases the capability of being resourceful and it can display one's determination, leadership skill, analytic ability, and so on. In the context of the present study, the FLEs need to be flexible in their functionalities for being able to address any awkward situation, especially in the COVID-19 pandemic scenario when the organizations are at sea as to what to do and how to survive in such dis-favorable business situation. In such crisis, the FLEs working directly with the customers are needed to think out of box since such skill is necessary to widen the horizon of their work-periphery.

Now a question arises how the FLEs could gain the ability to be adaptable to combat dynamic market situation. It is argued that such circumstances can be interpreted by the help of dynamic capability view (DCV) theory (Teece et al., 1997). DCV is defined as “high level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization's management a set of decision options for producing significant outputs of a particular type” (Winter, 2003, p.991). Again, dynamic capability (DC) is considered as a higher order capability for explaining organization's competitive advantage to achieve better performance in a highly changing dynamic market environment (Eckstein et al., 2015). DC is defined as organizational “ability to integrate, build, and reconfigure internal and external resources / competencies to address and possibly shape rapidly changing business environments” (Teece, 2012, p.1995). According to D.J. Teece (2014), DC can be conceptualized as comprised of three dimensions which are sensing capability, seizing capability, and reconfiguring capability. Sensing capability is the organizational ability to identify, develop, codevelop as well as assess technological opportunities which

are capable of meeting customers' needs. Seizing capability is considered as an ability of an organization for properly mobilizing the essential resources to fulfill the identified needs of the customers. Reconfiguring or transforming capabilities include all such multifarious activities which “recombine bundle of resources and ordinary capabilities” (Fainshmidt et al., 2016, p.2) to “innovate and respond to (or bring about) changes in the market and in the business environment more generally” (D.J. Teece, 2014, p.352). All these capabilities of the organizations are manifested by the abilities of the FLEs who closely work with the customers. In the light of the above discussion, it is argued that technological capability, emotional intelligence capability, and psychological capability of FLEs of organizations as dynamic capabilities helpful to sense, seize, and transform (reconfigure) the available opportunities and resources which would make the FLEs more productive and adaptable in the changed business scenario. Finally, it is argued that organizations with having strong ability of FLE adaptability could improve organizational performance in the changed business scenario by improving the job satisfaction and performance of the FLEs.

3.2. Development of hypotheses and conceptual model

From the review of literature and theories, it has been possible to identify the factors influencing FLE adaptability which could impact organizational performance mediating through job satisfaction and performance of the FLEs. In this section, all the factors will be explained, and attempts will be taken to formulate some hypotheses which could help to develop a theoretical model conceptually. Thus, to address the research questions, attempts have been taken to formulate some hypotheses for identifying the dynamic capability of FLEs which could influence FLE adaptability and endeavor has also been taken to investigate and analyze how FLE adaptability could ultimately improve the performance of the organizations.

3.2.1. Dynamic capabilities of FLEs

Frontline workers are considered the face of an organization. The FLEs are used to deal with the potential customers directly by replying to them over phones and by helping the customers in the retail stores, banks, hospitals, and so on (Quilliam et al., 2018). Hence, it can be safely inferred that no businesses of an organization can run uninterruptedly without the proper functioning of the FLEs (Subramony et al., 2021). The FLEs are supposed to be the first point of contact for the potential customers, any mistake from the ends of the FLEs can break the well-earned reputation of the organization. One of the best ways to ensure the FLEs to stay productive is to make them digitally empowered (Motamarrri et al., 2017). This could make sense since most of the FLEs of organizations grew up with technology. The FLEs are to be trained appropriately so that they become technologically savvy. This will help them to upgrade their technological ability which is perceived to impact their adaptability in any untoward situation. The technological capability is supposed to help the FLEs to properly respond to the dynamic changes of the market which is in consonance with the concept of DCV theory (Teece et al., 1997). Accordingly, the following hypothesis is developed.

H1a: Technological capability (TCA) positively impacts FLE adaptability (FAD).

Again, emotional intelligence of the FLEs can be conceptualized as an ability or a personality trait (Ciarrochi et al., 2000; Schutte et al., 2002). Emotional intelligence is considered as an ability as well as competency which helps the FLEs to exhibit positive attitudes towards work and could drive better outcomes (Lindblom et al., 2015). Emotional intelligence is considered as a subset of social intelligence. Emotional intelligence induces the ability of FLEs to appropriately monitor feelings of others and own feelings as well as emotions for differentiating among them (Salavey & Mayer, 1989). Emotional intelligence is defined as a set of interlinked skills associated with “the ability to perceive accurately, apprise, and express emotion, the ability to access and / or generate

feelings when they facilitate thought, the ability to understand emotion and emotional knowledge, and the ability to regulate emotions to promote emotional and intellectual growth" (Mayer et al., 1999, p.267). Emotional intelligence is needed to be regulated which is perceived to make use their emotions by driving them towards betterment of personal performance and constructive activities (Mehmood et al., 2020). Thus, emotional intelligence capability is expected to help the FLEs to sense, seize, and reconfigure appropriate opportunities to meet the needs of the customers in the dynamic market. This idea corroborates the concept of DCV theory (Teece et al., 1997). Accordingly, it is hypothesized as follows.

H1b: Emotional intelligence capability (EIC) positively impacts FLE adaptability (FAD).

Psychological capability of the FLEs is associated with their passion to derive benefits to the organizations by sincerely discharging their duties towards the potential customers of the organizations (Kim et al., 2019). Passion is considered as a motivational force emerging from the psychological alignment of the FLEs which drives the FLEs to work sincerely for the benefits of the organizations (Sadeghi, and Fekjaer, 2019). FLEs are the vital link between the organizations and the customers. FLEs create loyalty and satisfaction of the customers since the FLEs are held responsible to keep the promises on behalf of the organizations (Gronroos, 2020). Besides, it can be inferred that the excellence of FLEs helps the organizations to increase the revenue along with other matrices like customer experience score (Stuart, 2020). For ensuring psychological alignment of the FLEs for continuous betterment of the organizations, the organizations are required to train and motivate the FLEs to make them realize that they are the backbone of the organizations. The organizations should make them realize that their voice is important for any decision-making process (Leaman, 2018). Unless the FLEs are psychologically aligned for ensuring the success of organizations, it is hardly possible by the organizations to deepen the relationship with the customers by effectively solving their problems with the help of FLEs (Pollack et al., 2020). The psychological capability of the FLEs is considered as dynamic capability as this capability can develop sensing, seizing, and reconfiguring abilities of the FLEs (Teece, 2012). This concept corroborates with the DCV theory (Teece et al., 1997). As such, the psychological capability is perceived to help the FLEs to improve their adaptability. Accordingly, the following hypothesis is prescribed.

H1c: Psychological capability (PCA) positively impacts FLE adaptability (FAD).

3.2.2. FLE adaptability (FAD)

FLE adaptability (FAD) is conceptualized as the ability of the FLEs to exhibit service offerings, physical, social, as well as organizational adaptive behavior in response to the demand of environment, stakeholders, or a new situation (Sony and Nandakumar, 2014; Schiavone et al., 2021). FAD is comprised of seven dimensions. These are interpersonal adaptability (Sony and Nandakumar, 2015), service offering adaptability (Gwinner et al., 2005), political adaptability (Min, 2011), societal adaptability (Micheal and Mariappan, 2012), physical adaptability (Sony and Nandakumar, 2015), group adaptability (Micheal and Mariappan, 2012), and organizational adaptability (Arnold et al., 2012). An adaptable FLE is expected to exhibit such behavior responding to the requirements of the stakeholders which is found to eventually develop overall performance of the organizations through improvement of performance of the FLEs as well as their satisfaction. Moreover, employees working in the frontline act as the interface between the organizations and the potential customers. As a result, the FLEs are needed to bear the brunt of the customers while catering their basic needs (Micheal and Mariappan, 2012). For ensuring better performance, the FLEs are needed to maintain organizationally desired behaviors when they interact with the customers, and this will also ensure their job satisfaction (Arnold and Barling, 2003). Accordingly, the following hypotheses are formulated.

H2a: FLE adaptability (FAD) positively impacts the job satisfaction (JSA) of the FLEs.

H2b: FLE adaptability (FAD) positively impacts the organization performance (OPE).

H2c: FLE adaptability (FAD) positively impacts the employee performance (EPE).

3.2.3. Job satisfaction (JSA)

Job satisfaction (JSA) is defined as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976). Job satisfaction can be interpreted as a collection of feelings which an individual is supposed to possess towards his or her job (Robbins, 2005). JSA is considered to impact absenteeism, level of job dissatisfaction, tardiness, grievance expression, high turnover, low morale, improvement of quality, and active participation in decision-making (Lin et al., 2015). If the FLE could exhibit such behavior that could benefit the stakeholders, it will then surely impact the internal appraisal system of the organization which is perceived to influence the overall organization performance. Accordingly, the following hypothesis is developed.

H3a: Job satisfaction (JSA) of FLEs has a positive impact on the organization performance (OPE).

3.2.4. Employee performance (EPE) and organization performance (OPE)

Employee performance (EPE) is concerned with the behaviors which are appropriate and relevant to the goal of the organizations and under the specific control of the individual employees (Ellinger et al., 2008). EPE is conceptualized as a function of performance of a specific task of the employees which include standardized job descriptions. EPE is also deemed to have been impacted by the variables including maintenance of good interpersonal relations, absenteeism, withdrawal behavior, and other behaviors which increase unwanted hazards at the workplace (Murphy, 1989). Employee performance depends on the demands of the jobs, the mission, and the goals of the organizations (Befort and Hattrup, 2003). These discussions lead to argue that performance of the employees is perceived to help the organizations for achieving better overall performance. The above discussion leads to formulate the following hypothesis.

H3b: Employee performance (EPE) positively impacts the overall organization performance (OPE).

With all these inputs, a theoretical model is proposed conceptually which is shown in Fig. 1.

4. Research methodology

4.1. Instrument development

To test the proposed theoretical model, cross-sectional data has been used. The data has been gathered using survey-based instruments. The measures used in this study have been taken from existing literature. The dimensions have been measured with the help of 5-point Likert scale with anchors spanning from Strongly Disagree (SD) marking as 1 to Strongly Agree (SA) marking as 5. In the present study, 5-point Likert scale has been used because this process takes less time and efforts, and by using this scale, the respondents get option to remain neutral by opting 'neither disagree nor agree' option. The questionnaire so prepared has been pretested for face-validity with the help of 10 experts having expertise in the domain of this study. Out of these 10 experts, six experts came from industry having considerable expertise in the field of this study and the remaining four experts have come from academic side who have good knowledge in the domain of this study. These experts were requested to thoroughly review the set of questions for examining the structure, ambiguity, readability, and completeness (Dubey et al., 2019; Gupta et al., 2021). A pilot test has also been conducted with a small sample. This sample is different from the main survey sample. Pilot test has been done to ascertain the contemplated response rate.

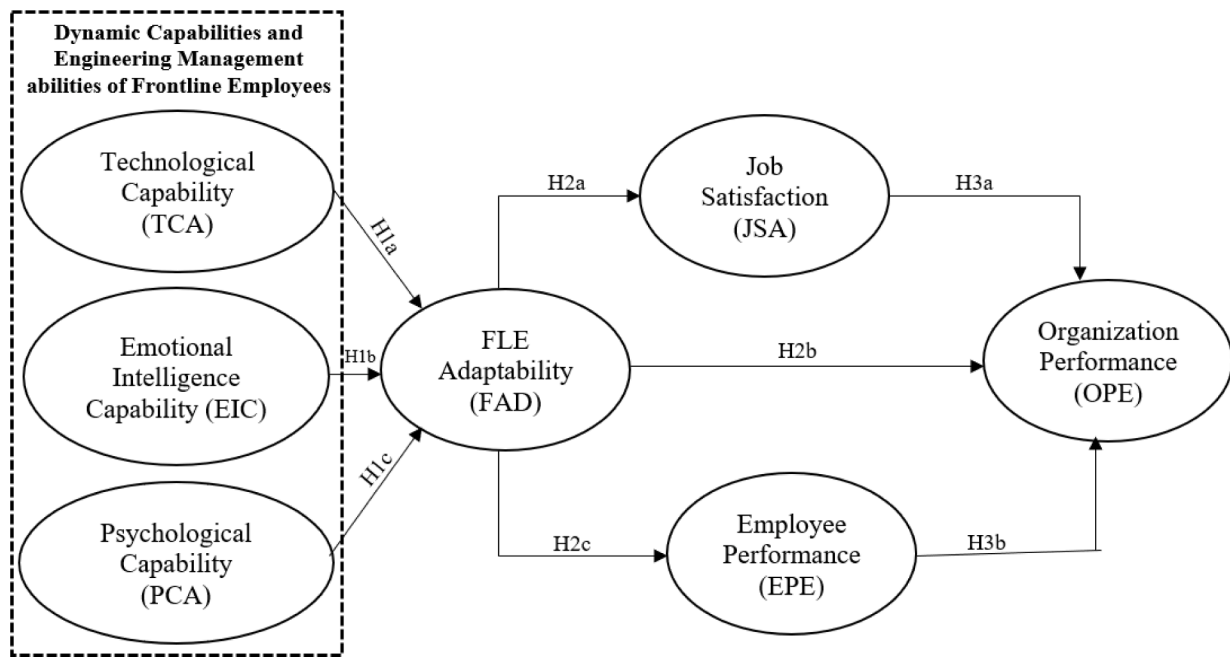


Fig. 1. Conceptual model [adopted from I-ADAPT (Ployhart and Bliese, 2006) and DCV theory (Teece et al., 1997)].

From the inputs of the pilot test, questionnaire has been finetuned and some questions were dropped since they could not explain their corresponding constructs properly. In the appendix, the questionnaire with the sources has been provided. In this way, eventually 36 questions in the form of statement were prepared.

4.2. Data collection strategy

For collection of data, the present study has used purposive sampling which is also called judgmental sampling or selective sampling (Deming, 1990). In this process, population elements are selected based on the judgement of the researchers. The present study is interested to investigate and analyze the adaptability among the FLEs of the organizations. "Frontline employee is one who engages in job related interactions with a person who is considered part of the environment and who is not a member of the organization" (Robertson, 1995, p.73). In this study, to target the usable respondents, the foundation of the potential respondents has been constructed first on the judgmental basis and then with convenience approach, some organizations in Asia and EMEA (Europe, Middle East, Africa) have been selected. In this way, from Asia and EMEA, 40 organizations have been selected at random. Top executives of these 40 organizations were requested to allow their managers of different ranks along with the FLEs to participate in this survey. After two-three rounds of telephonic discussions with the top executives, eventually, top executives of 19 organizations of Asia and EMEA agreed to allow their employees to participate in the survey. These top executives were assured that the anonymity and confidentiality of the participants will be strictly preserved. They were also informed that the aim of this study is purely academic. 700 employees of these 19 organizations were selected at random which include managers of different ranks as well as FLEs. Response sheets containing 36 instruments along with guidelines on how to fill up the response sheet were handed over to these employees with a request to respond within the two months. Within the scheduled time window 429 responses were obtained. The response rate is 61.28%. It is needed to perform non-response bias test. For this, recommendations provided by Armstrong and Overton (1977) have been duly followed. Chai square test and independent t-test have been conducted considering inputs of first and last 100 responses (each). No mentionable deviation of results in

these two cases was noted. Hence, the non-response bias did not pose any major concern in this study. On scrutiny of these 429 responses, it was found that 17 responses were vague and incomplete. Those were not considered. These 17 responses were not considered because out of these 17 responses, 11 concerned respondents did not fill up the response sheet. The remaining six concerned respondents put tick marks in more than one option against each question. Analysis was done with the 412 responses against 36 instruments. The demographic statistics of these 412 respondents are provided in Table 1.

5. Analysis of data and results

To test the hypotheses and validate the proposed conceptual model, partial least square structural equation modeling technique has been preferred. This technique has been preferred because it can analyze an exploratory study like this (Peng and Lai, 2012). This technique helps to analyze a model in a simpler way (Vinzi et al., 2010). By this process, data which are not normally distributed can be analyzed. This is not allowed in the case of analysis through covariance based structural equation modeling approach (Rigdon et al., 2017). Here, PLS3.2.3 software has been used (Ringle et al., 2015). This process consists of two parts which are estimation of measurement properties along with discriminant validity test and the second part contains analysis through structural equation modeling for hypotheses testing.

Table 1 Demographic statistics (N = 412).

Particular	Category	Number – Asia (260, 63%)	Number – EMEA (152, 37%)
Gender	Male	169 (65%)	106 (69.7%)
	Female	91 (35%)	46 (30.3%)
Employee hierarchy	Junior manager	65 (25%)	36 (23.7%)
	Midlevel manager	39 (15%)	24 (15.8%)
	Senior manager	26 (10%)	15 (9.9%)
	FLEs	130 (50%)	77 (50.6%)

5.1. Measurement properties

Loading factor (LF) of each item has been measured to account for the non-dimensionality of the measurement item (Awang, 2012). To assess the convergent validity, reliability, and internal consistency; average variance extracted (AVE), composite reliability (CR), and Cronbach’s alpha (α) of each construct has been estimated. The results highlight that all the parameters are within the permissible range since the lowest permissible values of CRs and AVEs are 0.80 and 0.50 respectively (Hair et al., 2017). The results are shown in Table 2.

5.2. Discriminant validity test

Assessment of discriminant validity is considered as a building block to evaluate a model (Hair et al., 2010). Discriminant validity asserts the consequences of a measuring construct. It indicates that the phenomenon of interest has not been captured with other items (Hair et al., 2010; Henseler et al., 2015). Discriminant validity is interpreted as the degree to which a measure does not correlate with another measure whose concerned construct is not related to it conceptually. In this context, it appears that the square roots of the AVEs are all greater than the bifactor correlation coefficients which satisfies Fornell and Larcker criteria (Fornell and Larcker, 1981). This confirms discriminant validity. The results are shown in Table 3.

To supplement the Fornell and Larcker criteria for discriminant

Table 2
Measurement properties.

Constructs /Items	SD	Mean	LF	AVE	CR	α	t-values
TCA				0.81	0.85	0.91	
TCA1	1.96	4.10	0.82				22.17
TCA2	2.41	3.17	0.86				26.12
TCA3	2.01	3.20	0.96				33.18
TCA4	1.76	3.26	0.95				34.16
TCA5	2.44	3.28	0.89				19.17
TCA6	1.53	4.11	0.92				32.14
EIC				0.84	0.89	0.94	
EIC1	1.61	3.27	0.89				26.17
EIC2	1.30	4.29	0.96				28.20
EIC3	2.11	4.16	0.97				29.01
EIC4	2.17	3.07	0.91				39.11
EIC5	2.29	4.22	0.87				17.71
EIC6	1.14	3.17	0.90				32.34
PCA				0.87	0.93	0.96	
PCA1	1.11	3.06	0.85				34.36
PCA2	2.27	3.11	0.97				37.19
PCA3	2.17	4.26	0.89				22.07
PCA4	1.15	4.17	0.94				25.24
PCA5	2.29	3.19	0.95				26.11
PCA6	1.09	4.05	0.90				28.89
FAD				0.84	0.88	0.94	
FAD1	1.76	3.66	0.90				24.76
FAD2	1.53	3.17	0.94				26.13
FAD3	1.48	3.28	0.91				37.29
FAD4	2.13	3.39	0.95				19.46
FAD5	1.29	4.17	0.85				27.29
FAD6	2.37	3.18	0.96				21.13
JSA				0.80	0.84	0.89	
JSA1	1.41	2.92	0.89				24.17
JSA2	2.17	3.11	0.85				23.12
JSA3	2.48	4.01	0.93				26.08
JSA4	1.79	4.27	0.96				32.21
EPE				0.88	0.93	0.96	
EPE1	1.63	4.29	0.92				26.27
EPE2	1.82	4.11	0.96				24.12
EPE3	1.84	3.17	0.90				28.19
EPE4	2.71	3.19	0.97				35.16
OPE				0.78	0.83	0.89	
OPE1	2.11	3.29	0.87				27.18
OPE2	2.29	4.18	0.94				29.11
OPE3	2.17	3.19	0.85				32.03
OPE4	1.19	3.07	0.87				34.19

Table 3

Discriminant validity test (Fornell & Larcker criteria).

Constructs	TCA	EIC	PCA	FAD	JSA	EPE	OPE	AVE
TCA	0.90							0.81
EIC	0.29	0.92						0.84
PCA	0.26	0.26	0.93					0.87
FAD	0.17	0.35	0.18	0.92				0.84
JSA	0.33	0.27	0.37	0.24	0.89			0.80
EPE	0.28	0.19	0.26	0.19	0.32	0.94		0.88
OPE	0.31	0.29	0.25	0.29	0.31	0.27	0.88	0.78

validity test, Heterotrait Monotrait (HTMT) test has duly been performed. The results have shown that HTMT values are all greater than the lowest threshold value of 0.85 (Henseler et al., 2015, p.129). It also confirms discriminant validity. The results are shown in Table 4.

5.3. Causality test

Causality is considered as an important aspect which is needed to be addressed before proceeding for hypotheses testing. In terms of the suggestions of Kock (2015), non-linear bivariate causality direction ratio (NLBCDR) has been examined. The acceptable value of NLBCDR is ≥ 0.7 (Wamba et al., 2019). For each path, NLBCDR has been estimated. The values are TCA→FAD (1.004), EIC→FAD (1.001), PCA→FAD (1.000), FAD→JSA (1.004), FAD→OPE (0.999), FAD→EPE (1.002), JSA→OPE (1.003), and EPE→OPE (0.998). These estimates clearly highlight that the support towards the reversed hypothesized path (direction) of causality is weak. Hence, it is inferred that causality does not pose any major issue in this study.

5.4. Mediation analysis

Mediating effects of JSA and EPE within the linkages FAD→JSA→OPE and FAD→EPE→OPE have been analyzed following the procedures laid down by Preacher and Hayes (2008) and Hayes et al. (2011). This study has bootstrapped the sampling distribution of indirect effects with consideration of 95% CI (confidence interval). The mediating path from FAD to OPE via JSA is the product of the path coefficients from FAD to JSA and from JSA to OPE which comes out to be 0.08, significant at $p < 0.001$. The mediating path from FAD to OPE via EPE is the product of the path coefficients from FAD to EPE and from EPE to OPE which comes out to be 0.09, significant at $p < 0.001$. The indirect effects are also found significant at $p < 0.001$. Hence, JSA and EPE act as two strong mediating variables between FAD and OPE. The results are shown in Table 5.

5.5. Common method bias (CMB)

The study depends on survey-based data. Hence, there is possibility of CMB causing the indicators for sharing a certain common variation (Podsakoff et al., 2003, 2012). However, to minimize the chance of CMB, some procedural remedies have been adopted as preemptive measures. During survey, the instruments were made simpler in the pretest stage. Moreover, all the respondents were assured that their anonymity and confidentiality will be preserved. Nevertheless, for assessing the severity of CMB in the data, statistical analyses have been

Table 4

Discriminant validity test (HTMT).

Construct	TCA	EIC	PCA	FAD	JSA	EPE	OPE
TCA							
EIC	0.68						
PCA	0.53	0.29					
FAD	0.44	0.27	0.33				
JSA	0.57	0.41	0.47	0.53			
EPE	0.31	0.46	0.37	0.52	0.44		
OPE	0.19	0.25	0.51	0.47	0.32	0.37	

Table 5
Results of mediation testing.

Effects	Linkages	Path coefficients	Standard error	T-statistics	p-values
Direct effects	FAD→OPE	0.54	0.036	15.724	0.000
Indirect effects via JSA	FAD→JSA→OPE	0.08	0.024	5.621	0.000
Indirect effect via EPE	FAD→EPE→OPE	0.09	0.021	5.116	0.000

performed. A pot hoc Harman Single Factor Test (SFT) has been conducted. It has been found that CMB did not pose a major issue since (a) several factors have been identified (b) the first factor was found to account for the majority of variance and (c) no general factor was found in the unrotated structure. Since scholars opined that Harman’s SFT is not a robust test for CMB (Ketokevi and Schrodter, 2004), marker correlation test (Lindell and Whitney, 2001) has been performed. The results indicate that a difference between the original model and marker-based model exist which is 0.017 (≤ 0.06) (Mishra et al., 2018). Thus, it is inferred that CMB could not distort the prediction of this study.

5.6. Effect size f^2 test

It is essential to examine if there is any contribution of the latent exogeneous variable on the respective endogenous variables. For this, effect size f^2 test has been performed. The values of f^2 are weak if they lie between 0.020 – 0.150, they are medium when they lie between 0.150 – 0.350, and they are considered large when their values are more than 0.350 (Cohen, 1988). In the present study, the f^2 values are as follows. For TCA→FAD (0.369, Large), EIC→FAD (0.401, Large), PCA→FAD (0.227, Medium), FAD→JSA (0.399, Large), FAD→OPE (0.411, Large), FAD→EPE (0.311, Medium), JSA→OPE (0.403, Large), and EPE→OPE (0.392, Large).

5.7. Hypotheses testing (SEM)

To examine the model, bootstrapping procedure with consideration of 5000 resamples has been undertaken. Considering omission

separation 7, attempts have been taken to assess the cross-validated redundancy by estimating Stone-Geisser Q^2 value (Stone, 1974; Geisser, 1975) which came out to be 0.059 (positive) (Mishra et al., 2018). It confirms that the model has predictive relevance. For assessing the model fit, Standardized Root Mean Square Residual (RMSE) has been considered as a standard index. Its values came out to be 0.064 for PLS and 0.033 for PLSc (Mishra et al., 2018). Both these values are less than 0.08. Hence, the model is in order. This process helps to estimate the path coefficients of different linkages and other parameters. The model after validation through SEM is shown in Fig. 2.

The results are detailed in a tabular form in Table 6.

5.8. Results

The present study has formulated eight hypotheses. All the

Table 6
Structural equation modeling (SEM).

Linkages	Hypotheses	R ² / Path coefficients	p-values	Remarks
Effects on FAD		R ² =0.47		
By TCA	H1a	0.16	P < 0.001 (***)	Supported
By EIC	H1b	0.19	P < 0.05(*)	Supported
By PCA	H1c	0.23	P < 0.01(**)	Supported
Effects on JSA		R ² =0.49		
By FAD	H2a	0.26	P < 0.001 (***)	Supported
Effects on OPE		R ² =0.73		
By FAD	H2b	0.54	P < 0.001 (***)	Supported
Effects on EPE		R ² =0.52		
By FAD	H2c	0.32	P < 0.001 (***)	Supported
Effects on OPE		R ² =0.73		
By JSA	H3a	0.31	P < 0.001 (***)	Supported
By EPE	H3b	0.29	P < 0.001 (***)	Supported

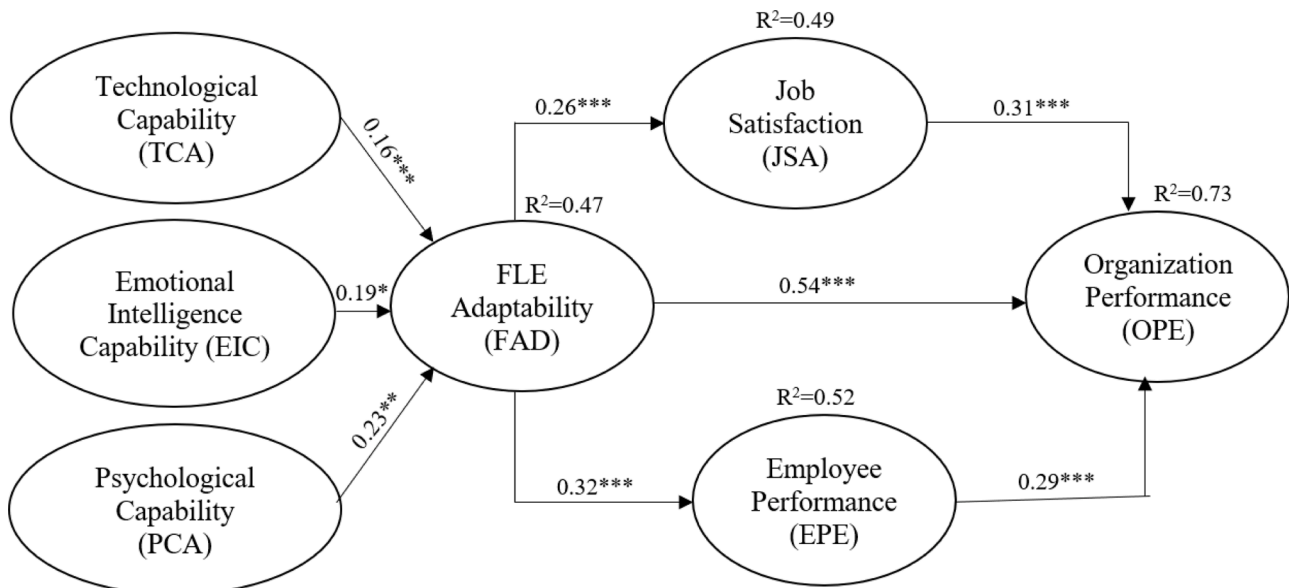


Fig. 2. Validated model (SEM).

hypotheses have been supported by statistical process. The results demonstrate that impacts of TCA, EIC, and PCA on FAD (H1a, H1b, and H1c) are all significant and positive since the concerned path coefficients are 0.16, 0.19, and 0.23 respectively with respective levels of significance as $p < 0.001$ (***), $p < 0.05$ (*), and $p < 0.01$ (**). The impacts of FAD on JSA, OPE, and EPE (H2a, H2b, and H2c) are all significant and positive since the concerned path coefficients are 0.26, 0.54, 0.32 respectively with each having level of significance as $p < 0.001$ (***). The impacts of JSA and EPE on OPE (H3a and H3b) are significant and positive since the concerned path coefficients are 0.31 and 0.29 respectively with each having level of significance as $p < 0.001$ (***). In terms of the coefficients of determination, the results demonstrate that TCA, EIC, and PCA could explain FAD to the tune of 47% ($R^2 = 0.47$). FAD could explain JSA to the tune of 49% ($R^2 = 0.49$) whereas FAD could explain EPE to the tune of 52% ($R^2 = 0.52$). The results also highlight that JSA, FAD, and EPE could explain OPE to the extent of 73% ($R^2 = 0.73$) which is the explanative power of the proposed theoretical model.

6. Discussion

The present study provides laudable inputs to the body of research towards affectivity in the organizational workplace by testing the links of technological, emotional intelligence, and psychological capabilities of FLEs with their adaptability. This study could find impact of these three abilities on FLE adaptability. The present study has considered these three abilities as dynamic capabilities in terms of DCV theory (Teece et al., 1997) since it has been argued that these three abilities of an organization possess the ability of sensing, seizing, and configuring appropriate opportunities to design the business practices and processes through their FLEs to reach out the customers even in any crisis like COVID-19 pandemic. These hypotheses have received support from the concept of a study of (Sony and Mekoth, 2016) where a nexus has been established between emotional intelligence, frontline employee adaptability, job satisfaction, and job performance. The present study has added two other factors with emotional intelligence ability which are technological as well as psychological capability. Technological abilities of FLEs are expected to enhance their technical knowledge which helps them to use the technology as and when it is required. Besides, by improving the psychological abilities of FLEs, it is expected that the FLEs would exhibit their passion to sincerely strive to achieve the goal of the organization. This concept is supported by another study of Crawford et al. (2021) where the study elucidated that FLE passion is concerned with the concept of intense positive feelings with identity reinforcement helpful for the FLEs of organizations to solve multifarious customer problems. The FLE adaptability helps the FLE of the organizations to successfully address a turbulent situation when the normal business activities are severely affected. The FLEs with this flexibility could work properly in such unfavorable situation like COVID-19 pandemic to keep the organizations operationally active which could provide the FLEs full satisfaction for serving the organizations successfully. The present study has demonstrated that FLE adaptability enhances their performance, and they could be able to solve the problems of the customers which will in turn will improve overall performance of the organizations. The present study has demonstrated that FLE adaptability can improve the organization performance mediating through the two mediators JSA and EPE. The present study has shown that these two mediating variables act as two strong mediators yielding high explanative power of the proposed theoretical model. Dropping these two mediating variables, this study has proposed a rival model and on analysis it has been found that the explanative power of the rival model is less than the explanative power of the original proposed model. The details have been discussed in the appendix.

6.1. Contributions to theory

The present has provided several theoretical contributions. No extant literature is found to have identified the salient predictors of FLE adaptability and no extant literature has investigated how FLE adaptability could impact their job satisfaction and performance which in turn could improve the overall performance of the organization. However, the present study has analyzed all these points and has provided a successful theoretical model. Hence, the endeavor of the authors in this respect is claimed to have provided a substantial input to the extant literature. The present study has been able to fill up an important gap in the extant literature by providing an impactful insight to highlight a nexus between FLE adaptability and organization performance. While synergizing FLE adaptability with performance of the organizations, this study has successfully utilized the mediating effects of the two factors JSA and EPE which is claimed to have improved the effectiveness of the proposed model achieving such a high explanative power. The present study has also interpreted the necessity of inclusion of JSA and EPE as mediators in the analysis of the rival model provided in appendix 2. The present study has been able to establish a nexus between the FLE adaptability and organization performance mediating through the two strong mediators JSA and EPE which could enhance the explanative power of the model. The present study has explained the contributions of FLE adaptability by the help of extended individual adaptability theory (I-ADAPT) (Ployhert and Bliese, 2006) towards organization performance. The concept of this theory has been extended in the present study and this theory has been applied by widening its amplitude of applicability. In such context, the concept of the adaptability of FLEs has been extended to fit with the I-ADAPT since here adaptability is referred to as an outcome such as job performance, adaptive expertise, strategic planning, and so on. In this study, adaptability has been explained as a FLE ability to adjust with the changing situation during COVID-19 pandemic. Extending the implication of I-ADAPT and by explaining the meaning of adaptability to the broader context, the present study could successfully explain impact of FLE adaptability on organization performance through two mediators JSA and EPE in the light of I-ADAPT. The present study has shown that technological capability, emotional intelligence capability, and psychological ability of FLEs impact significantly and positively FLE adaptability. In this context, the present study has taken help of DCV theory (Teece et al., 1997) and the amplitudes of these three abilities have been extended by ascribing that these three abilities of FLEs possess the capability of dynamic capabilities like sensing, seizing, and reconfiguring the opportunities to meet the changing needs of the customers in the dynamic market. Thus, by considering the three capabilities predicting FLE adaptability as dynamic abilities, this study could explain these predictors of FLE adaptability in the light of extended DCV theory. Thus, appropriately extending the concept of I-ADAPT and DCV theory, it has been possible to successfully explain the FLE adaptability as a predictor of organization performance through the two mediators job satisfaction as well as employee performance. This attempt is claimed to be a unique theoretical contribution of the present study. A study of Sony and Nandakumar (2015) investigated the relationship between emotional intelligence, frontline employee adaptability, job satisfaction, and job performance. The idea of the study of Sony and Nandakumar (2015) has been extended in the present study to infer that apart from emotional intelligence ability, other two factors like technological and psychological ability of FLEs also impact FLE adaptability that could eventually impact the organization performance. This idea has added substantial inputs to the extant literature. The present study has been able to theorize that predicted by the FLEs' dynamic ability, the FLE adaptability would improve performance of an organization supported by the two mediators. This idea has been able to enrich the knowledge of the practitioners and the managers on how to be able to use FLE capability to the best possible way for addressing the unforeseen situation like COVID-19 pandemic. Thus, this study has framed a successful

theoretical model extending the I-ADAPT and DCV theory which if properly implemented, would help to improve the performance of the FLEs as well as would help for betterment of the overall performance of the organizations. A study of Ghlichlee and Bayat (2021) investigated the mediating role of customer-oriented behavior synergizing the FLE engagement and business performance. This idea has been extended in the present study to investigate how FLE adaptability predicted by the several abilities of FLEs could help to improve organizational performance directly and mediating through two factors like job satisfaction and employee performance. This has added values to the extant literature.

6.2. Implication to practice

The present study has provided several practical implications to the managers and practitioners of the organizations. The present study has hypothesized that technological capability, emotional intelligence capability, and psychological capability significantly and positively impact FLE adaptability (H1a, H1b, and H1c). It implies that the managers of the organization should put much stress on making the FLEs technically savvy. For this, proper training is needed to be imparted to the FLEs so that they are always technologically updated which will help the FLEs to address any dis-favorable situation during any turbulent environment such as COVID-19 pandemic. Emotional intelligence ability is related to FLE adaptability and use of the emotion is concerned with the ability of the individuals to make use of the emotion by driving those emotions towards development of personal performance as well as constructive activities. The managers must appropriately motivate the FLEs to drive their emotions and passions to sincerely fulfill the goal of the organization. The managers need to hold periodical meetings with the FLEs to make them realize that the organizations assign proper values to the opinion of the FLEs. This will help the organizations as in that case, the FLEs will be psychologically and emotionally aligned to strive to fulfill the goal of the organization. This will help to improve the satisfaction level of the FLEs and will ensure better performance of the FLEs. The present study has hypothesized that FLE adaptability positively and significantly impacts job satisfaction, organization performance, as well as employee performance (H2a, H2b, and H2c). This implies that the FLEs must develop the ability of being capable of adjusting to new challenging conditions, especially in the context such as COVID-19 apocalyptic situation. This will make the FLEs satisfied as they are able to overcome any constraint situation. The managers must arrange to train the FLEs to be more flexible in their working conditions. They must be comfortable to work out of routine task to become able to solve any problem of the customers in such crisis. The present study has hypothesized that job satisfaction and employee performance positively and significantly impact overall organization performance (H3a and H3b). This implies that the managers must be watchful to see that the FLEs do not feel any hindrance in their routine as well as out of box

functions in this crisis. For this, the FLEs must be allowed to use the technological and other infrastructure of the organizations so that they can discharge their duties with their full satisfaction which could improve their own performance as well as the overall performance of the organizations.

6.3. Limitations and future scope of research

The present study has provided several theoretical and practical implications. Still this study is not free from all the limitations. First, the results of this study depend on cross-sectional data which creates issues of causality between the constructs giving rise to endogeneity defect. It is suggested that the future researchers should conduct longitudinal study to eliminate this defect. Second, the present study has used DCV theory (Teece et al., 1997). The DCV theory suffers from the defects of context insensitivity (Ling-Yee, 2007). DCV fails to identify the conditions when the abilities of the organizations are most valuable. In this context, it is suggested that future studies may explore the optimum conditions in which FLE adaptability may ensure best organization performance. Third, the results of the present study depend on the inputs of the respondents based out of Asia and EMEA region. Hence, there is external validity issue. Future researchers should collect data from respondents evenly dispersed across the globe. It would project a result with generalizability. Fourth, the explanative power of the proposed theoretical model is 73%. It is suggested that future researchers should consider other boundary conditions and constructs to examine if by such inclusion, the explanative power of the proposed theoretical model could be improved. Fifth, this study did not analyze a rival model which could have given a scope to compare the rival model with the proposed theoretical model to highlight the superiority and veracity of the proposed theoretical model. The future researchers should nurture this point. Hence, it is suggested that the result of the present study may be utilized in different context with proper precautions in the light of the above-mentioned limitations.

Author statement

Conceptualization, Investigation, Statistical Analysis, Data Collection, Methodology, Validation, Formal Analysis, Writing – Original Draft, Writing – Review and Editing, Funding, Supervision

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Appendix 1. Summary of questionnaire

Items	Source	Statements	Response [SD][ID] [N][A][SA]
TCA1	Quilliam et al., 2018	Technological ability of an organization is an important dynamic capability.	[1–5]
TCA2	Subramony et al., 2021	Frontline employees should always be ready to face any turbulent situation.	[1–5]
TCA3	Motamarri et al., 2017	Frontline employees should understand the technological ability of the organization.	[1–5]
TCA4	Teece et al., 1997	Better understanding of technological capability helps the adaptability of the frontline employees.	[1–5]
TCA5	Subramony et al., 2021	Technological capability helps frontline employees to properly respond to any dynamic situation.	[1–5]
TCA6	Motamarri et al., 2017	Frontline employees should upgrade their technological capability to overcome any challenge.	[1–5]
EIC1	Ciarrochi et al., 2000	Emotional intelligence of a frontline employee is the personal trait.	[1–5]

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(continued)

Items	Source	Statements	Response [SD][D] [N][A][SA]
EIC2	Schutte et al., 2002	I believe that emotional intelligence helps frontline employees exhibiting positive work attitude.	[1–5]
EIC3	Lindblom et al., 2015	Emotional intelligence motivates frontline employees to work under stress.	[1–5]
EIC4	Salavey & Mayer, 1989; Teece et al., 1997	I believe that emotional intelligence of a frontline employee helps to derive better outcomes.	[1–5]
EIC5	Mayer et al., 1999	I think that emotional intelligence is a set of interlinked skills.	[1–5]
EIC6	Mehmood et al., 2020	I believe that emotional intelligence helps in improving adaptability of the frontline employees.	[1–5]
PCA1	Kim et al., 2019	I believe that psychological capability of frontline employees is an asset of the organization.	[1–5]
PCA2	Sadeghi, and Fekjaer, 2019	I think that psychological capability of frontline employees is related to dynamic capability of the organization.	[1–5]
PCA3	Gronroos, 2020	Psychological capability of frontline employees helps to improve their adaptability ability.	[1–5]
PCA4	Pollack et al., 2020	I believe that psychological capability of a frontline employee helps to deliver better customer services in turbulent situation.	[1–5]
PCA5	2020	I believe that organizations should invest to improve psychological ability of the frontline employees.	[1–5]
PCA6	Teece et al., 1997	Psychological ability helps the frontline employees to work under stressful situation.	[1–5]
FAD1	Sony and Nandakumar, 2014	Better adaptability ability of the frontline employees is an asset of the organization.	[1–5]
FAD2	2011	Better adaptability of frontline employees helps to exhibit better service offerings to the customers.	[1–5]
FAD3	Gwinner et al., 2005	Frontline employees having better adaptability ability will have better satisfaction level.	[1–5]
FAD4	Micheal and Mariappan, 2012	I believe that better adaptability capability of the frontline employees helps to improve the performance of the organization.	[1–5]
FAD5	Sony and Nandakumar, 2015	I believe that organizations having better frontline employee adaptability ability have greater competitive advantages.	[1–5]
FAD6	Sony and Nandakumar, 2014	I believe that better adaptability of frontline employees helps to respond dynamic customer needs.	[1–5]
JSA1	Robbins, 2005	Better job satisfaction keeps the employee morale high.	[1–5]
JSA2	Locke, 1976	I believe that better job satisfaction of the employees improves quality of decision-making process.	[1–5]
JSA3	Lin et al., 2015	I believe that job satisfaction impacts absenteeism.	[1–5]
JSA4	Robbins, 2005	I think better job satisfaction of the employees can improve organization performance.	[1–5]
EPE1	Murphy, 1989	I believe that better employee performance can improve the performance of the organization.	[1–5]
EPE2	Ellinger et al., 2008		[1–5]

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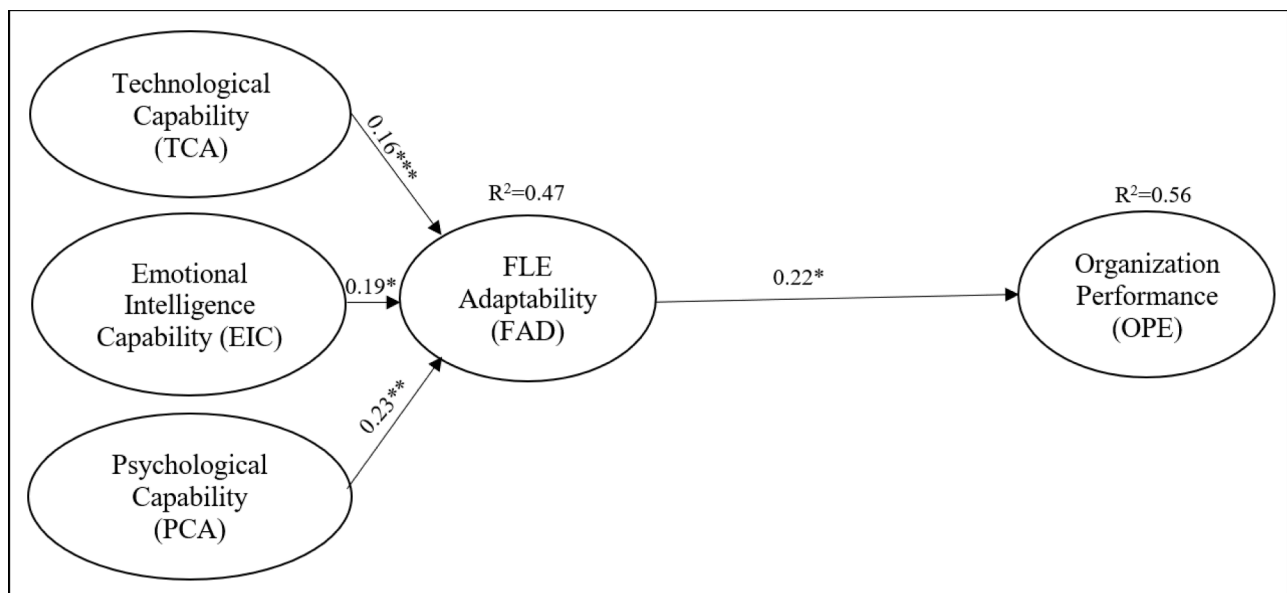


Fig. 3. Rival model (Alternative model).

(continued)

Items	Source	Statements	Response [SD][D] [N][A][SA]
EPE3	Befort and Hatstrup, 2003	Better trained employees can provide superior performance to the organization.	[1–5]
EPE4	Teece, 2012	Better employee performance helps to meet the goals of the organizations.	[1–5]
OPE1	Sony and Nandakumar, 2014	I believe that better interpersonal relationship improves the employee performance.	[1–5]
OPE2	Befort and Hatstrup, 2003	Organizations having better performance have competitive advantages.	[1–5]
OPE3	Micheal and Mariappan, 2012	Better performing organizations can generate more revenue.	[1–5]
OPE4	Befort and Hatstrup, 2003	Dynamic capabilities of the organization can help to improve its performance.	[1–5]
		Better performing organizations can improve the stakeholder value.	[1–5]

SD = Strongly Disagree; D = Disagree; N = Neither agree nor disagree; A = Agree; SA = Strongly Agree.

Appendix 2. Rival Model

It is a rival model of Fig. 2. The rival model shows that FLE adaptability predicted by TCA, EIC, and PCA directly impact OPE. The rational in presenting this rival model is many folds. The analytic results of the rival model demonstrate that the impacts of TCA, EIC, and PCA on FAD remain the same with the original proposed theoretical model (Fig. 2). However, the direct impact of FAD on OPE has remarkably reduced compared to the proposed theoretical model since the path coefficient is 0.22 with level of significance $p < 0.05^*$. Besides, so far as coefficient of determination is concerned, the three exogeneous variables could explain FAD to the tune of 47% ($R^2 = 0.47$) which is the same with that of the original proposed theoretical model. But the predictive power of the rival model has been considerably reduced to 56% ($R^2 = 0.56$) in comparison to the predictive power of the proposed theoretical model which is 73% ($R^2 = 0.73$). The analysis of this result confirms the effectiveness of the proposed theoretical model with the contribution of two mediating variables JSA and EPE. The consideration of the mediating variables has strengthened the effectiveness of the proposed theoretical model shown in Figs. 2 and 3.

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