

The Impact of Technological Interactions on Entrepreneurial Marketing Initiatives in Thailand Service Industry

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Abstract

The objective of this study is to measure technological effects on entrepreneur marketing initiatives during covid-19 in Thailand. The report used a group of 210 people from Thailand's service industry. The questionnaires were sent through e-mails to 300 respondents and 210 valid questionnaires were further analyzed using Smart PLS (SEM) 3.3. The findings revealed that entrepreneurial attitude, opportunity recognition, and opportunity exploitation have positive and meaningful association with entrepreneurial marketing initiatives. Moreover, the entrepreneurial passion mediates between entrepreneurial attitude and entrepreneur marketing initiatives, opportunity recognition and entrepreneur marketing initiatives. The entrepreneurial passion found to be insignificant among opportunity exploitation and entrepreneur marketing initiatives. The findings provide comprehensive understanding of technological role in small businesses.

Keywords: COVID-19, opportunity development, exploitation, recognition, entrepreneur

1.0 Introduction

The twenty-first century is transformed beyond imagination, and the importance of technology is well accepted (Sushil 2020). The science-based technological advancements dramatically altered the businesses and entrepreneurship worlds (Jahanshahi et al. 2018). Not only individuals infiltrate technology in their personal lives, but also infiltrate their professional lives. Based on infiltration of technology, the entrepreneur modernized market models, innovated the products and

services, and solved complex challenges to come up with different results for massive development (Sushil, 2019).

The companies are not only creating new products and services in this age of new radical technologies; they also are reshaping projects, blurring international boundaries, and stimulating existing regulatory frameworks (Klumpp 2018). The new technology fueled by technological advances like mechanical technology, block chain, and IOT (Internet of Things) were expanding at such a rapid rate that

is difficult for industry analysts and practitioners to catch up. Awareness, innovation, creativity, and technological development also contribute to entrepreneurship and economic growth.

On the other side, global economy is facing the threat of coronavirus (COVID-19). This evolving challenge has a significant impact on entrepreneurial marketing initiatives because it has an indirect impact on socioeconomic issues such as food shortages and shortages of export and import and stock level (Zhang et al. 2020). Further, millions of citizens contaminated and killed by COVID-19, including India, Bangladesh, Iran and Thailand. This sudden global pandemic has caused supply disruptions in a number of manufacturing companies in Asian countries like India, Thailand and Nepal and elsewhere.

A growing economic stream of entrepreneurs, particularly those with start-up companies, is in crisis (Kuckertz et al. 2020). Therefore, entrepreneurs are compelled to use technology in making marketing initiatives. During the pandemic, technological advancements are making ones lives easier and more stable, as well as entrepreneurs in lowering their company operational costs. Now entrepreneurs make marketing initiatives from home or from distant areas and they are not required to come into the office (Mohammed et al. 2020). As a consequence of COVID-19, almost every company in any sector would now experience intermittent sales loss (Vagal et al. 2020).

Specifically, Thailand's ongoing health crisis is a major drawback, which is forcing entrepreneurs to make market initiatives from their homes. Since direct interaction with other individuals presents a health danger, it is impossible for someone to make marketing initiatives as individual in the covid-19 pandemic. Further, in covid-19 pandemic case, technology allows entrepreneurs to make better marketing initiatives quickly and more efficiently (Polas et al. 2020; Zhang, 2021). Moreover, Polas et al. (2020) suggested that for effective marketing initiatives, entrepreneur should build positive intention and fully aware of the factors that exist in market. In this regard, entrepreneur needs positive passionate attitude to make marketing initiatives in uncertain condition. Researcher Cardon et al. (2009) stated that entrepreneurial passion with optimistic and emotions urge individuals to

pursue to make the required market initiatives. In addition, entrepreneurial passion comes from positive attitude that entrepreneur build while making the market initiatives effectively. Moreover, the entrepreneurial education helps to create the significant contribution between entrepreneurial passion and entrepreneurial marketing initiatives (Lackéus, 2012). Further, making market initiatives effectively, entrepreneur also needs exploitation from the opportunity in the market to get the advantages where epidemic has been prevailing (Polas, & Raju, 2021).

Thus, the above-mentioned scenario provides researchers a broader perspective theoretically and practically. In the existing literature of entrepreneurship, this study would contribute by introducing new antecedents of entrepreneurial marketing initiatives such as attitudes towards entrepreneurship, opportunity exploitation, opportunity recognition, entrepreneurial passion and entrepreneurial education. Previous literature did not address such factors yet. Therefore, this paper would be useful to the entrepreneur in terms of presenting the factors that need to be considered in making the marketing initiatives effectively. Practically, the results of this study can be useful to politicians and government departments in designing strategies to improve entrepreneurship courses, which may increase people's desire to engage in entrepreneurial practices. Accordingly, in this context, the study in hand is intended to explore the role of entrepreneurial attitude, opportunity exploitation, and opportunity recognition among employees in service sector of Thailand. Further the study is also aimed to examine the mediating effect of entrepreneurial passion between Entrepreneurial Attitude, opportunity exploitation, opportunity recognition and entrepreneurial marketing initiatives. Additionally, to examine the moderating role entrepreneurial education between entrepreneurial passion and entrepreneurial marketing initiatives.

2.0 Literature Review

2.1 Entrepreneur Marketing Initiatives

Entrepreneurial marketing is a combination of innovative, proactive, and risk-taking activities that create, communicate, and deliver value to

and by customers, entrepreneurs, marketers, their partners, and society at large. The study of entrepreneur marketing initiatives has further expanded by (Whalen et al. 2016).

The majority of past studies have reported a causal planning approach, especially in large firms (Davies, 1994), and the high-tech sector (Hughes & Morgan, 2007). Our model shows that both effectual and causal marketing processes that can trigger entrepreneurial marketing. However, the study of Yang, and Gabrielsson, (2017) found that in high-tech business-to-business INVs, more entrepreneurial marketing is achieved through entrepreneurs using effectuation. Marketing initiatives following the adoption of the causation approach can prompt only a limited degree of entrepreneurial marketing that lacks the market creation, innovativeness, proactiveness, and value co-creation elements (Yang, & Gabrielsson, 2017). In addition, the emergence of opportunity recognition and exploitation could enhance the effective marketing initiatives from entrepreneur (Polas et al. 2020).

2.2 Entrepreneurial Attitude

Attitudes represents the habitual reactions to events. The expression of an 'attitude' is usually restricted to a view that indicates the overall tendency of an individual towards the object, belief or entity. Attitudes may be favorable, negative or neutral, as well as generic and neutral. However, in the context of entrepreneurship, an attitude was measured by the amount to which entrepreneurship and its results are perceived to be worthwhile, advantageous and preferable by the person (Azen, 2002). Researchers Roberta Fenech, Priya, and Ivanov (2019) identified four dimensions for entrepreneurial attitude, including the need for achievement, personal control over behavior, innovation, and self-esteem. They examined each facet of entrepreneurship in three elements, comprising affection, feeling and emotions.

Another factor that distinguishes entrepreneurs from small business owners is their attitude toward entrepreneurship (ATE). A small business owner may not participate in modern and creative marketing practices, while an entrepreneur aims to develop new technologies and processes, reach new markets, and explore

new sources of supply (Mayasari, Maharani, & Wiadi, 2012). Furthermore, SME marketing applies to marketing strategies utilized for small and medium-sized companies, while EMD is a broad concept that encompasses all types of businesses regardless of population, age, or income. As a result, it introduces new components or reinforces old ones, such as a change-oriented mindset, a creative approach, and an awareness of possibilities.

Thus, the following hypothesis would be formulated.

H1: The positive effect of entrepreneurial attitude on entrepreneurial marketing initiatives

2.3 Opportunity Exploitation

Entrepreneurial possibilities are often defined as instances/ ways in which novel products, services, raw resources, and organizational systems can be launched and sold at a profit margin greater than their cost of production (Shane & Venkataraman, 2000). As so, they represent the possibility of meeting a market need creatively by combining resources to produce higher value (Ardichvili et al., 2003). Such situations may appear as unmet customer and market needs, or under-employed resources and are likely to emerge when change occurs, new information becomes available, or the marketplace is subject to incongruence. Shane and Venkataraman (2000) argued that although the discovery of an opportunity is a necessary condition for entrepreneurship, it is not sufficient. Subsequent to the discovery of an opportunity, a potential entrepreneur must decide to exploit the opportunity (Shane & Venkataraman, 2000).

On the other hand, during the COVID-19 pandemic, technology helps entrepreneurs to make initiatives regarding the OE. Following the same, in the face of a worldwide epidemic, it allows initiatives-making more flexible and simpler to assess faster (Samiei & Habibi, 2020). In general, in an entrepreneurial marketing method, the OE is a critical step in the development of a successful enterprise (Raza, 2020). The initiatives to choose an entrepreneurial path means a commitment to market entry (Matejun, 2018). Entrepreneurs who want exploitation should focus on main factors that would lead to success in the competitive environment during COVID19 (Rogers et al. 2020).

The OE mechanism is crucial in the entrepreneurial marketing initiatives (EMD), particularly when it comes to social activities. This entails initiating a campaign based on the action plan, which includes validating the commodity and bringing it closer to the consumer and services. It's the time where sales and markets are developing (Nouri & Ahmady, 2018). The EOE and the EMD seems to have a significant association. The larger the influence of OE is on EMD, the higher the degree of OE (Crick et al. 2020). If an entrepreneur has the potential for exploitation, final initiatives on selling products or services during COVID-19 become inevitable (Morrish & Jones, 2020).

Thus, the following hypothesis would be formulated.

H2: The positive effect of opportunity exploitation on entrepreneurial marketing initiatives

2.5 Opportunity Recognition

Recognizing opportunities is a critical component of entrepreneurship incorporating sustainable entrepreneurship, as entrepreneurship is all about the identification and exploitation of profitable opportunities (Shane & Venkataraman, 2000). While sustainable entrepreneurship is the discovery, creation, and exploitation of opportunities to create future goods and services that sustain the natural and/or communal environment and provide development gain for others (Patzelt & Shepherd, 2011). A great deal of research has been carried out on opportunity recognition in entrepreneurship literature (Tang et al., 2010), but opportunity recognition in sustainable entrepreneurship, which differs from traditional entrepreneurship has received less attention (Raza, 2020).

The ability to recognize regions in which new technologies, raw materials, markets to organize approaches can be familiarized by the development of means–end associations is serve as entrepreneur opportunity recognition (EOR) (Polas et al. 2020). However, COVID-19 has destroyed the global economy and badly affected the performance of SMEs. Since physical health is so essential, entrepreneurs are looking for ways to cut company-running expenses while protecting themselves from viruses (Morrish & Jones 2020).

Furthermore, it is important to recognize the market is the most vital aspect of the opportunity level. It tends to help industry to take their strategies for realization. Following the same, it's a method of distributing the idea of an incentive around the globe (Zeng et al. 2020). There is also a strong correlation between entrepreneur opportunity recognition (EOR) and EMD. As a consequence, EOR has stronger effect on EMD. Thus, the following hypothesis would be formulated.

H3: The positive effect of opportunity recognition on entrepreneurial marketing initiatives

2.6 Mediating role of Entrepreneurial Passion

The concept of entrepreneurial passion is described as the experience of intense positive feelings, which is triggered by involvement in entrepreneurial activities, and roles that gives meanings and self-identity to entrepreneur (Cardon, Wincent, Singh, & Drnovsek, 2009). Having passion is the characteristic of many successful entrepreneurs; it is the “fire of desire” which motivates their daily endeavors (Cardon, Wincent et al., 2009) and encourages them to persevere in the face of adversity (Chen, Yao, & Kotha, 2009). However, we presently know very little about how a supervisor's entrepreneurial passion affects an entrepreneur's employees.

In this study it is assume that entrepreneurial passion (EP) mediates the partnership between Attitude Toward Entrepreneurship, opportunity recognition, and opportunity exploitation, as well as entrepreneurial marketing initiatives. Entrepreneurial enthusiasm is also sparked by technological advancements. It relieves them of additional focusing when making marketing initiatives (Ko et al. 2019). Entrepreneurs make initiatives remotely during the COVID-19 outbreak. Individuals who exhibit EP, according to Cardon et al. (2009), have positive, exceptional emotions that are equivalent to the entrepreneurial activities they are engaged in, as well as a strong motivational desire to follow certain feelings, which leads them to make the necessary initiatives regarding their marketing strategy at home based on COVID-19.

H4: The positive effect of entrepreneurial attitude on entrepreneurial passion

H5: The positive effect of opportunity exploitation on entrepreneurial passion

H6: The positive effect of opportunity recognition on entrepreneurial passion

H7: The positive effect of entrepreneurial passion on entrepreneurial marketing initiatives

H8: The mediating effect of entrepreneurial passion between entrepreneurial attitude and entrepreneurial marketing initiatives

H9: The mediating effect of entrepreneurial passion between opportunity exploitation and entrepreneurial marketing initiatives

H10: The mediating effect of entrepreneurial passion between opportunity recognition and entrepreneurial marketing initiatives

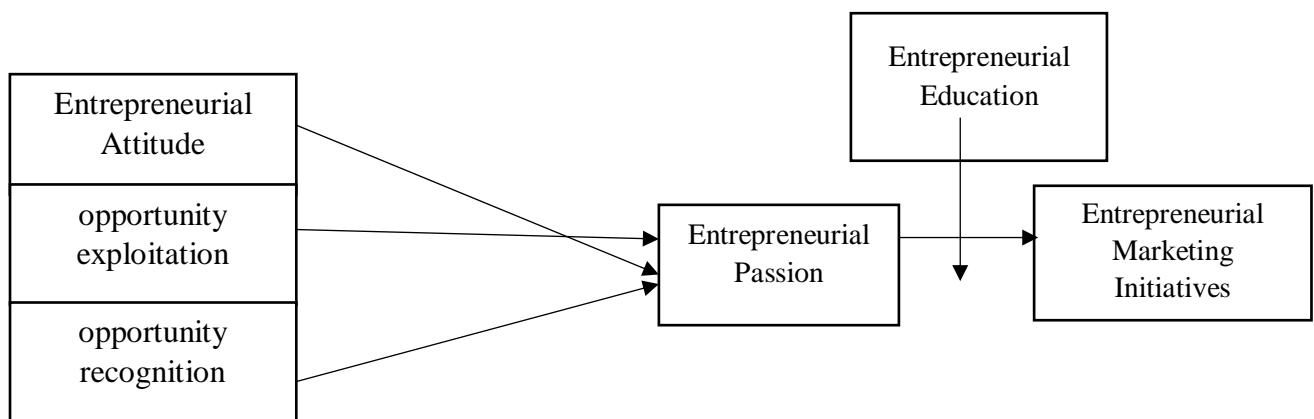
2.7 Moderating role of Entrepreneurial Education

Entrepreneurial teaching and research approaches are essential to consider the

emotion-based perspective and it can develop the significant contribution in creating the environment where entrepreneur learning can be conducted (Gondim & Mutti, 2011). Therefore, a learning environment that create the passion to pursue the entrepreneurial initiatives (Triposakul, 2018). The term passion is excitement and fun to explain the emotional energy that helps to build the enterprise (David Rae, 2005). The quality and the amount of passionate engagement are the source for the endurance of creative enterprises (Lackeus, 2012). The effective entrepreneurial education plays a significant role in developing the entrepreneurial passion among entrepreneurs which encouraging them to take part in business activities. Therefore, this study proposes the following hypotheses:

H11: The moderating effect of entrepreneurial Education between Entrepreneurial Passion and entrepreneurial marketing Initiatives

Conceptual Framework



3.0 Methodology

This study has adopted quantitative and a cross-sectional design. Since the study contains concrete issues, specific conclusions, and a comprehensive collection of information, the analytical form of testing was often used (Malhotra, 2004). For this study, the sample size is 210 based on entrepreneurs who were working in Thailand's service industries and SMEs. Since, the study based on entrepreneur initiatives making, so, they would have been asked the questions about the market initiatives making. The researchers personally visited, made calls and also emailed them to get the

response for the study. Convenient sampling has been used to collect the data.

3.1 Measurement

Validated elements were included for this analysis in order to evaluate the various formats. Constructs were calculated using literature-based reflective constructs and were measured using a five-point Likert scale from (1) "strongly disagree" to (5) "strongly support." Hair et al (2014) used minimal criteria for an instrument with 22-item questionnaire. OR developed by Wang et al. (2013); OE developed by (Schwartz & Teach, 2000); EP developed by (Cardon et al. 2013); and EMD developed by (Kilenthong et al., 2010). Five items were used to calculate ATE developed by (Yurtkoru et al., 2014).

Further, for data analysis, PLS (SEM) 3.0 has been used to analyze the data.

4.0 Data Analysis

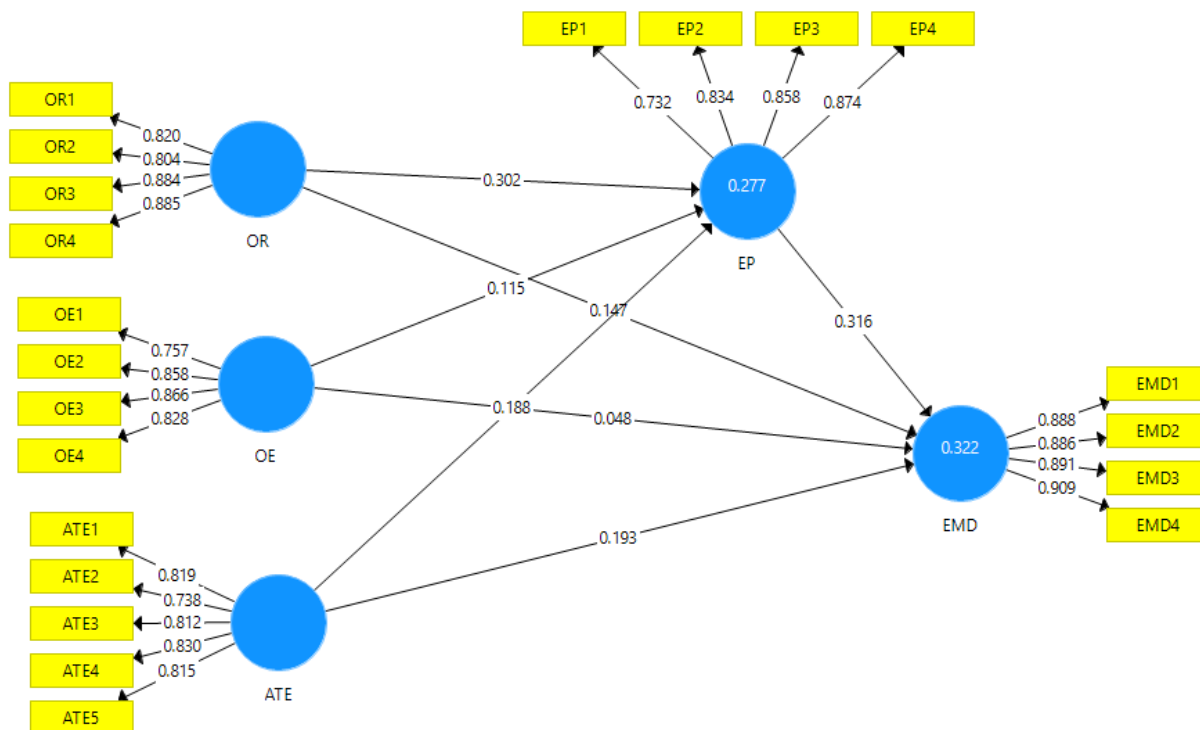


Figure 4.1:

Internal Consistency

The factor loadings of all of the study's provided items were investigated. As per Hair et al. (2010), convergent validity is obtained when the factor loadings are greater than 0.5. The loadings in this study are greater than 0.5, as seen in Table

4.1. Further, in table 4.1 further explains the CR, AVE, and Cronbach's alpha values of each construct.

Table 4.4

Internal Consistency

Constructs	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
ATE	0.864	0.876	0.901	0.646
EMD	0.916	0.92	0.941	0.798
EP	0.844	0.844	0.895	0.683
OE	0.846	0.847	0.897	0.686
OR	0.871	0.882	0.911	0.721

Discriminant Validity (DV), according to Farrell and Rudd (2009), is "the degree to which a single latent variable differs from other latent variables." DV was by using AVE. The square root of AVE was used to match the similarity of the latent variables (Fornell & Larcker, 1981).

The square root of AVE, as per Fornell and Larcker (1981), must be greater than the latent variables.

Table 4.2
Discriminant Validity

	ATE	EMD	EP	OE	OR
ATE	0.804				
EMD	0.428	0.894			
EP	0.412	0.489	0.826		
OE	0.552	0.408	0.449	0.828	
OR	0.529	0.441	0.489	0.76	0.849

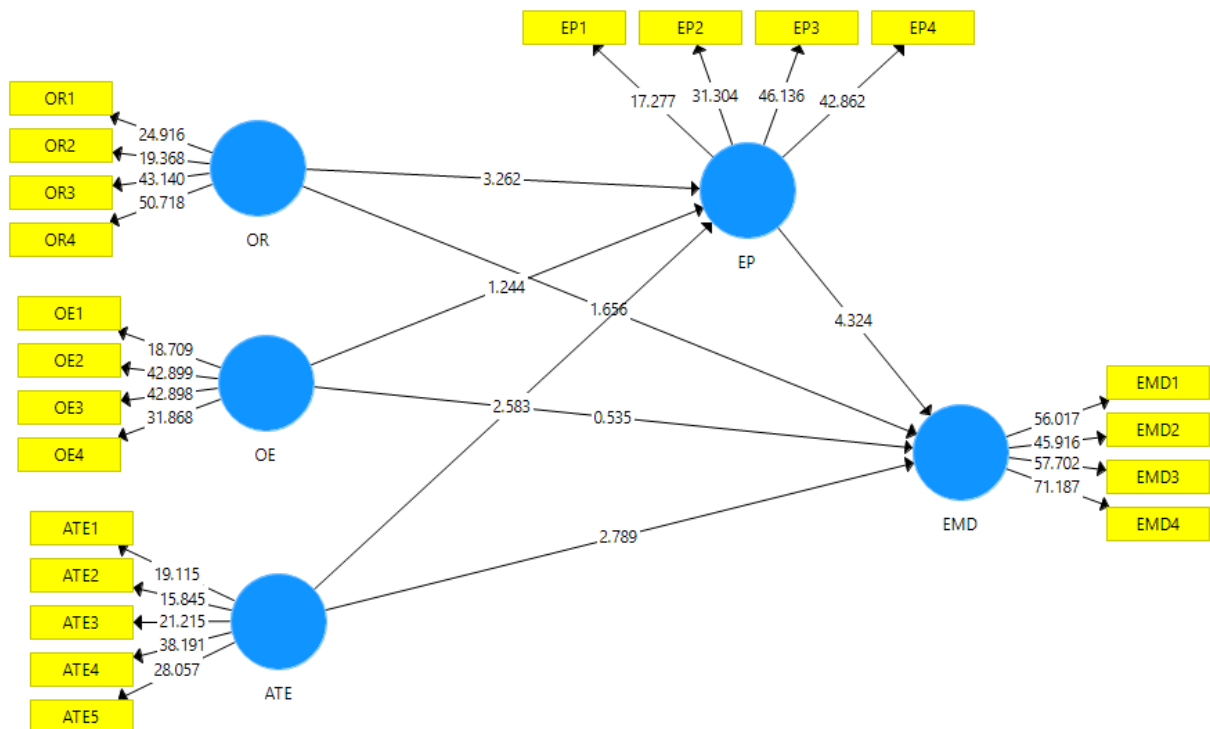


Figure 4.2:

Structural Equation Model

At the outset, hypothesis 1 predicted that ATE is positively related to EMD. Table 4.3 demonstrates a significant and positive

association between ATE and EMD ($\beta=0.193$, $t= 2.789$, $p=0.005$) supporting hypothesis 1. Hypothesis 2 predicted that ATE is positively

related to EP. Table 4.3 demonstrates a significant and positive association between ATE and EP ($\beta= 0.188, t=2.583, p=0.010$) a significant hypothesis 2. Hypothesis 3 predicted that EP is positively related to EMD. Table 4.3 demonstrates a significant and positive association between EP and EMD ($\beta=0.316, t=4.324, p=0.000$) supporting hypothesis 3. Hypothesis 4 predicted that OE is positively related to EMD. Table 4.3 demonstrates a non-significant and positive association between OE and EMD ($\beta=0.048, t=0.535, p=0.593$) rejecting hypothesis 4. Similarly, hypothesis 5 predicted that OE is positively related to EP. Results in Table 4.3 demonstrates a non-significant

positive association between OE and EP ($\beta=0.115, t=1.244, p=0.214$) rejecting hypothesis 5. Likewise, hypothesis 6 predicted that OR is positively related to EMD. Results in Table 4.3 demonstrates a non-significant positive association between OR and EMD ($\beta=0.147, t=1.656, p=0.098$) rejecting hypothesis 6. Hypothesis 7 predicted that OR is positively related to EP. Table 4.3 demonstrates a significant and positive association between OR and EP ($\beta=0.302, t=3.262, p=0.001$) supporting hypothesis 7.

Table 4.3
Direct Relationship

Hypothesis	Relationship	Original Sample (O)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values	Decisions
H1	ATE -> EMD	0.193	0.069	2.789	0.005	Accepted
H2	ATE -> EP	0.188	0.073	2.583	0.010	Accepted
H3	EP -> EMD	0.316	0.073	4.324	0-000	Accepted
H4	OE -> EMD	0.048	0.090	0.535	0.593	Rejected
H5	OE -> EP	0.115	0.092	1.244	0.214	Rejected
H6	OR -> EMD	0.147	0.089	1.656	0.098	Rejected
H7	OR -> EP	0.302	0.093	3.262	0.001	Accepted

Hypothesis 8 predicts that the mediating effect of EP between ATE and EMD is significant ($\beta =0.060, t =2.135>1.96, p=0.033<0.05$), therefore, accepted the hypothesis 8. Hypothesis 9 predicts that the mediating effect of EP between OE and EMD is non-significant ($\beta =0.036, t =1.220<1.96, p=0.223>0.05$),

therefore, rejected the hypothesis 8. Hypothesis 9 predicts that the mediating effect of EP between OR and EMD is significant ($\beta =0.095, t =2.501>1.96, p=0.012<0.05$), therefore, supports the hypothesis 9.

Table 4.4
Indirect Relationship

Hypothesis	Relationship	Original Sample (O)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values	Decisions
H8	ATE -> EP -> EMD	0.060	0.028	2.135	0.033	Accepted

H9	OE -> EP -> EMD	0.036	0.030	1.220	0.223	Rejected
H10	OR -> EP -> EMD	0.095	0.038	2.501	0.012	Accepted

In Table 4.5, Q^2 shows the value of 0.237 for EMD and 0.168 for EP. Hair Junior et al. (2016)

stated that if the Q^2 value is > zero the model shows predictive relevance.

Table 4.5

Predictive relevance

Constructs	SSO	SSE	$Q^2 (=1-SSE/SSO)$
ATE	1,290.00	1,290.00	
EMD	1,032.00	787.753	0.237
EP	1,032.00	858.4	0.168
OE	1,032.00	1,032.00	
OR	1,032.00	1,032.00	

5.0 Discussion and Findings

The study examined the mediating effect of EP between attitudes towards entrepreneurship, opportunity exploitation, OR and EMD. At the outset, hypothesis 1 predicted that ATE is positively related to EMD. It demonstrates a significant and positive association between ATE and EMD ($\beta=0.193$, $t=2.789$, $p=0.005$) supporting hypothesis 1. In Thailand when entrepreneur has enthusiasm and positive intention they would make the right initiatives to get the benefit from the market. Hypothesis 2 predicted that ATE is positively related to EP. It demonstrates a significant and positive association between ATE and EP ($\beta=0.188$, $t=2.583$, $p=0.010$) a significant hypothesis 2. In Thailand when entrepreneur has positive attitude with enthusiasm they would have full passion to get success. Hypothesis 3 predicted that EP is positively related to EMD. It demonstrates a significant and positive association between EP and EMD ($\beta=0.316$, $t=4.324$, $p=0.000$) supporting hypothesis 3. Entrepreneur in Thailand having full passion would make effective marketing initiatives to get advantages and benefit from the market. Hypothesis 4 predicted that OE is positively related to EMD. It demonstrates a non-significant and positive association between OE and EMD ($\beta=0.048$,

$t=0.535$, $p=0.593$) rejecting hypothesis 4. In Thailand, at the time of opportunity exploitation, entrepreneur could not make effective market initiatives. Since, they do not believe in opportunity exploitation, Further, hypothesis 5 predicted that OE is positively related to EP. Results demonstrates a non-significant positive relationship between OE and EP ($\beta=0.115$, $t=1.244$, $p=0.214$) rejecting hypothesis 5. In Thailand, at the time of only opportunity exploitation, entrepreneur does not have any passion to exploit or get the benefit from market. Moreover, hypothesis 6 predicted that OR is positively related to EMD. Results demonstrates a non-significant positive relationship between OR and EMD ($\beta=0.147$, $t=1.656$, $p=0.098$) rejecting hypothesis 6. In Thailand, at the time of only opportunity recognition, entrepreneur is unable to make effective market initiatives or get the benefit from market. Hypothesis 7 predicted that OR is positively related to EP. It demonstrates a significant and positive relationship between OR and EP ($\beta=0.302$, $t=3.262$, $p=0.001$) supporting hypothesis 7. In Thailand, at the time of opportunity recognition, entrepreneur creates passion to recognize benefits from market. Hypothesis 8 predicts that the mediating effect of entrepreneurial passion between ATE and EMD is significant ($\beta=0.060$, $t=2.135 > 1.96$, $p=0.033 < 0.05$), therefore,

accepted the hypothesis 8. In Thailand, when the entrepreneur have positive attitude they would develop passion to make effective market initiatives to get competitive advantages. Hypothesis 9 predicts that the mediating effect of entrepreneurial passion between OE and EMD is non-significant ($\beta = 0.036$, $t = 1.220 < 1.96$, $p = 0.223 > 0.05$), therefore, rejected the hypothesis 8. In Thailand, at the time of only opportunity exploitation, entrepreneur does not have any passion to exploit or get the benefit from market while making marketing initiatives. Hypothesis 9 predicts that the mediating effect of entrepreneurial passion between OR and EMD is significant ($\beta = 0.095$, $t = 2.501 > 1.96$, $p = 0.012 < 0.05$), therefore, supports the hypothesis 9. In Thailand, at the time of only opportunity recognition, entrepreneur develops passion to recognize the benefit from market while making marketing initiatives.

Conclusion

This study gives new insight to understand the technological interaction, opportunities and challenges in entrepreneurial marketing initiatives making. Based on results, the study concludes that entrepreneurial attitude and entrepreneurial passion have positive and significant relation with entrepreneurial marketing initiatives. The study also revealed that there is an insignificant relationship between opportunity exploitation and entrepreneurial marketing initiatives as well as opportunity exploitation have insignificant association with entrepreneurial passion. There is a positive and significant relationship between opportunity recognition and entrepreneurial passion. The study has significant mediating effect between entrepreneurial attitude and entrepreneurial marketing initiatives, while there is no significant mediating effect of entrepreneurial passion between opportunity exploitation and entrepreneurial marketing initiatives. Further, the study shows that significant mediating effect of entrepreneurial passion between opportunity recognition and entrepreneurial marketing initiatives.

5.1 Limitations and Future Research

This research is bound to some limitations. Such as the researchers had difficulty gathering the questionnaires due to certain prospective respondents' who were unwillingness to

cooperate. As a result, we chose 210 for this analysis. Second, several entrepreneurs failed to answer to mail-in questionnaires. Since this research is restricted to a single country, the differences in electronic systems and infrastructures are another drawback. Our results indicate a number of avenues for potential studies. The emphasis of this research is solely on the firm's entrepreneurs. As a result, a prospective analysis could include members from entrepreneurial teams to examine their marketing initiatives-making abilities. Future research may provide both quantitative and subjective evidence to back up more reliable conclusions about the impact of recognizing entrepreneurship opportunities on individual success.

5.2 Theoretical and Practical Implication

In the existing literature of entrepreneurship, this study made a theoretical contribution by examining the new antecedents of entrepreneurial marketing initiatives such as attitudes towards entrepreneurial, opportunity exploitation, opportunity recognition that has not been explored in the previous literature. This paper would also be useful to the entrepreneur empirically regarding the exploration of the factors in making the marketing initiatives effectively. As far as the practical implication is concerned, the outcomes of the study would be supportive to government administrations in crafting the policies to develop entrepreneurship factors, which may increase entrepreneur's need to indulge in entrepreneurial practices.

References

- [1] Afshar Jahanshahi, A., Al-Gamrh, B., & Gharleghi, B. (2020). Sustainable development in Iran post-sanction: Embracing green innovation by small and medium-sized enterprises. *Sustainable Development*, 28(4), 781–790.
- [2] Afshar Jahanshahi, A., Rauch, A., & Gholami, H. (2019). Too dangerous to be an entrepreneur-warzone entrepreneurs' exit intention. In *Academy of Management Proceedings* (Vol. 2019, No. 1, p. 13477). Briarcliff Manor, NY 10510: Academy of Management.
- [3] Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and

- the theory of planned behavior 1. *Journal of applied social psychology*, 32(4), 665–683.
- [4] Anjum, T., Ramzani, S. R., & Nazar, N. (2019). Antecedents of entrepreneurial intentions: a study of business students from Universities of Pakistan. *International Journal of Business and Psychology*, 1(2), 72–88.
- [5] Ardichvili, A., Cardozo, R. and Ray, S. (2003), “A theory of entrepreneurial opportunity identification and development”, *Journal of Business Venturing*, Vol. 18 No. 1, pp. 105-123.
- [6] Astuti, B., Lestari, R., & Bhakti, C. P. (2019). Student decisionmaking ability as a preparation for facing the industrial revolution 4.0. *International Journal of Scientific & Technology Research*, 8(10), 1200–1204.
- [7] Boone, S., Andries, P., & Clarysse, B. (2019). Does team entrepreneurial passion matter for relationship conflict and team performance? On the importance of fit between passion focus and venture development stage. *Journal of Business Venturing*, 35(5), 105984.
- [8] Cardon, M. S., Sudek, R., & Mitteness, C. (2009a). The impact of perceived entrepreneurial passion on angel investing. *Frontiers of Entrepreneurship Research*, 29(2), 1–15.
- [9] Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009b). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511–532
- [10] Cardon, M.S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511–532.
- [11] Carter, D. (2018). How real is the impact of artificial intelligence? The business information survey 2018. *Business Information Review*, 35(3), 99–115.
- [12] Chalmers, D., MacKenzie, N.G., Carter, S. (2020). Artificial intelligence and entrepreneurship: implications for venture creation in the fourth industrial revolution. *Entrepreneurship Theory and Practice*, Special Issue, pp.1–26. <https://doi.org/10.1177/1042258720934581>
- [13] Chen, X.-P., Yao, X., & Kotha, S. (2009). Entrepreneur passion and preparedness in business plan presentations: A persuasion analysis of venture capitalists’ funding decisions. *Academy of Management Journal*, 52(1), 199–214.
- [14] Crick, J. M., Crick, D., & Chaudhry, S. (2020). Entrepreneurial marketing decision-making in rapidly internationalising and deinternationalising start-up firms. *Journal of Business Research*, 113, 158–167.
- [15] Farrell, A. M., & Rudd, J. M. (2009). Factor analysis and discriminant validity: A brief review of some practical issues, Aston University Birmingham: UK. Retrieved from https://publications.aston.ac.uk/id/eprint/7644/1/factor_analysis_ANZMAC_2009
- [16] Fenech, R., Baguant, P., & Ivanov, D. (2019). The changing role of human resource management in an era of digital transformation. *Journal of Management Information and Decision Sciences*, 22(2), 1-10.
- [17] Fink, M., Koller, M., Gartner, J., Floh, A., & Harms, R. (2020). Effective entrepreneurial marketing on facebook—a longitudinal study. *Journal of Business Research*, 113, 149–157
- [18] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- [19] George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide*: Boston, (4th ed). The University of Michigan: USA, Allyn and Bacon.
- [20] Gilmore, A., McAuley, A., Miles, M. P., & Pattinson, H. (2020). Four questions of entrepreneurial marketing education: Perspectives of university educators. *Journal of Business Research*, 113, 189–197
- [21] Gonzalez-Uribe, J., & Wang, S. (2020). The Effects of Small-Firm Loan Guarantees in the UK: Insights for the COVID-19 Pandemic Crisis. Available at SSRN 3382280. <https://www.fmg.ac.uk/sites/default/files/publications/DP795.pdf>
- [22] Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). Advanced issues in partial least squares structural equation

- modeling, (2nd ed), United Kingdom: Sage Publications.
- [23] Hair, J. F., Hult, G. T. M., & Christian, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed). USA, Sage publications.
- [24] Hubner, S., Baum, M., & Frese, M. (2020). Contagion of entrepreneurial passion: Effects on employee outcomes. *Entrepreneurship Theory and Practice*, 44(6), 1112–1140
- [25] Hultman, C.M. (1999), "Nordic Perspectives on Marketing and Research in the Marketing/Entrepreneurship Interface", *Journal of Research in Marketing and Entrepreneurship*, Vol. 1, No. 1, pp. 54-71
- [26] Iyortsuun, A. S., Goyit, M. G., & Dakung, R. J. (2020). Entrepreneurship education programme, passion and attitude towards self-employment. *Journal of Entrepreneurship in Emerging Economies*.
- [27] Jahanshahi, A. A., Brem, A., & Shahabinezhad, M. (2018b). Does thinking style make a difference in environmental perception and orientation? Evidence from entrepreneurs in post-sanction Iran. *Sustainability (Switzerland)*, 10(5), 1546.
- [28] Jahanshahi, A. A., Nawaser, K., & Brem, A. (2018a). Corporate entrepreneurship strategy: an analysis of top management teams in SMEs. *Baltic Journal of Management.*, 13(4), 528–543.
- [29] Kamishima, Y., Gremmen, B., & Akizawa, H. (2018). Can merging a capability approach with effectual processes help us define a permissible action range for AI robotics entrepreneurship? *Philosophy of Management*, 17(1), 97–113
- [30] Karimi, S. (2020). The role of entrepreneurial passion in the formation of students' entrepreneurial intentions. *Applied Economics*, 52(3), 331–344
- [31] Kiani, A., Ali, A., Kanwal, S., & Wang, D. (2020). How and when entrepreneurs' passion lead to firms' radical innovation: Moderated mediation model. *Technology Analysis and Strategic Management*, 32(4), 443–456.
- [32] Klumpp, M. (2018). Automation and artificial intelligence in business logistics systems: human reactions and collaboration requirements. *International Journal of Logistics Research and Applications*, 21(3), 224–242
- [33] Ko, W. W., Liu, G., Wan Yusoff, W. T., & Che Mat, C. R. (2019). Social entrepreneurial passion and social innovation performance. *Nonprofit and Voluntary Sector Quarterly*, 48(4), 759–783.
- [34] Krueger, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice*, 31, 123-138.
- [35] Kuckertz, A., Brañdle, L., Gaudig, A., Hinderer, S., Reyes, C. A. M., Prochotta, A., & Berger, E. S. (2020). Startups in times of crisis– A rapid response to the COVID-19 pandemic. *Journal of Business Venturing Insights*. <https://doi.org/10.1016/j.jbvi.2020.e00169>.
- [36] Matejun, M. (2018). The process of opportunities exploration and exploitation in the development of SMES'innovativeness. *Management and Production Engineering Review*, 9(3), 3–15
- [37] Mayasari, I., Maharani, A., & Wiadi, I. (2012). Entrepreneurial Marketing For Small And Medium Enterprises Business An Exploratory Study On Entrepreneurial Performance. *INTERNATIONAL RESEARCH JOURNAL OF BUSINESS STUDIES*, 2(1).
- [38] Mayasari, I., Maharani, A., & Wiadi, I. (2012). Entrepreneurial Marketing For Small And Medium Enterprises Business An Exploratory Study On Entrepreneurial Performance. *INTERNATIONAL RESEARCH JOURNAL OF BUSINESS STUDIES*, 2(1).
- [39] Mohammed, A. O., Khidhir, B. A., Nazeer, A., & Vijayan, V. J. (2020). Emergency remote teaching during Coronavirus pandemic: the current trend and future directive at Middle East College Oman. *Innovative Infrastructure Solutions*, 5(3), 1–11.
- [40] Morrish, S. C., & Jones, R. (2020). Post-disaster business recovery: An entrepreneurial marketing perspective. *Journal of Business Research*, 113, 83–92
- [41] Murnieks, C. Y., Cardon, M. S., & Haynie, J. M. (2020). Fueling the fire: Examining identity centrality, affective interpersonal commitment and gender as drivers of entrepreneurial passion. *Journal of Business Venturing*, 35(1), 105909.

- <https://doi.org/10.1016/j.jbusvent.2018.10.007>.
- [42] Nouri, P., & Ahmady, A. (2018). A taxonomy of nascent entrepreneurs' marketing decisions in high-tech small businesses. *Journal of Small Business Strategy*, 28(3), 69–79.
- [43] Nummela, N., Vissak, T., & Francioni, B. (2020). The interplay of entrepreneurial and non-entrepreneurial internationalization: an illustrative case of an Italian SME. *International Entrepreneurship and Management Journal*, 1, 1–31. <https://doi.org/10.1007/s11365-020-00673-y>.
- [44] Nur, A. C., Burhanuddin, H., Niswaty, R., Cante, S. R., & Akib, H. (2020). Opportunity to develop on entrepreneurial outbreaks of endemic COVID-19 in South Sulawesi Indonesia. Available at SSRN 3637252. <https://doi.org/10.2139/ssrn.3637252>
- [45] Oluwatayo, A. A., & Adetoro, O. (2020). Influence of employee attributes, work context and human resource management practices on employee job engagement. *Global Journal of Flexible Systems Management*, 21(4), 295–308
- [46] Patzelt, H. and Shepherd, D.A. (2011), "Recognizing opportunities for sustainable development", *Entrepreneurship Theory and Practice*, Vol. 35 No. 4, pp. 631-652.
- [47] Ploum, L., Blok, V., Lans, T., & Omta, O. (2018). Exploring the relation between individual moral antecedents and entrepreneurial opportunity recognition for sustainable development. *Journal of Cleaner Production*, 172, 1582–1591
- [48] Polas, M. R. H., & Raju, V. (2021). Technology and entrepreneurial marketing decisions during COVID-19. *Global Journal of Flexible Systems Management*, 22(2), 95-112.
- [49] Polas, M. R. H., Raju, V., Hossen, S. M., Karim, A. M., & Tabash, M. I. (2020b). Customer's revisit intention: Empirical evidence on Gen-Z from Bangladesh towards halal restaurants. *Journal of Public Affairs*. <https://doi.org/10.1002/pa.2572>
- [50] Polas, R. H., Bhattacharjee, A., Raju, V., & Imtiaz, M. (2019a). Demographic factors influence on the tendency to become entrepreneur: Estimating the antecedents and consequences of entrepreneurial tendency. *International Journal of Management*, 8(1), 48–60.
- [51] Polas, R. H., Imtiaz, M., Saboor, A., Hossain, N., Javed, M. A., & Nianyu, L. (2019b). Assessing the perceived value of customers for being satisfied towards the sustainability of hypermarket in Malaysia. *International Journal of Business*, 6(5), 248–263.
- [52] Raju, V., & Phung, P. S. (2018). Understanding flamboyancy of globalization through higher educational economics: Limkokwing Integrated Model on Economics (LIME). *International Journal of Global Business*, 11(2), 40–50
- [53] Raza, M., Wisetsri, W., Chansongpol, T., Somtawinpong, C., & Ramirez-Asís, E. H. (2020). FOSTERING WORKPLACE BELONGINGNESS AMONG EMPLOYEES. *Polish Journal of Management Studies*, 22(2), 428.
- [54] Raza, M., Salleh, S., Tariq, B., Altayyar, R., & Shaari, H. (2020). Investigating the effects of customer-based brand equity on turnover intentions with mediating effect of customer citizenship behavior. *Management Science Letters*, 10(2), 279-286.
- [55] Ringle, C. M., Wende, S., & Will, S. (2005). *SmartPLS 2.0 (M3) Beta*. Hamburg, Germany. URL "http://www.smartpls.de" accessed on July, 6, 2012.
- [56] Rogers, T. F., Zhao, F., Huang, D., Beutler, N., Burns, A., He, W. T., & Yang, L. (2020). Isolation of potent SARS-CoV-2 neutralizing antibodies and protection from disease in a small animal model. *Science*, 369(6506), 956–963.
- [57] Saif, H. A., & Ghania, U. (2020). Need for achievement as a predictor of entrepreneurial behavior: The mediating role of entrepreneurial passion for founding and entrepreneurial interest. *International Review of Management and Marketing*, 10(1), 40–53
- [58] Samiei, E., & Habibi, J. (2020). The mutual relation between Enterprise resource planning and knowledge management: A review. *Global Journal of Flexible Systems Management*, 21(1), 53–66.
- [59] Shane, S. and Venkataraman, S. (2000), "The promise of entrepreneurship as a field of research", *Academy of Management Review*, Vol. 25 No. 1, pp. 217-226.

- [60] Sharahiley, S. M. (2020). Examining entrepreneurial intention of the Saudi Arabia's university students: Analyzing alternative integrated research model of TPB and EEM. *Global Journal of Flexible Systems Management*, 21(1), 67–84
- [61] Sriyakul, T., & Jermstiparsert, K. (2019). The mediating role of entrepreneurial passion in the relationship between entrepreneur education and entrepreneurial intention among university students in Thailand. *International Journal of Innovation, Creativity and Change*, 6(10), 193–212
- [62] Sushil. (2019). Efficient interpretive ranking process incorporating implicit and transitive dominance relationships. *Annals of Operations Research*, 283(1–2), 1489–1516.
- [63] Sushil. (2020). Interpretive multi-criteria ranking of production systems with ordinal weights and transitive dominance relationships. *Annals of Operations Research*, 290(1–2), 677–695
- [64] Tang, J., Kacmar, K.M. and Busenitz, L. (2010), "Entrepreneurial alertness in the pursuit of new opportunities", *Journal of Business Venturing*, Vol. 27 No. 1, pp. 77-97.
- [65] Vagal, A., Reeder, S. B., Sodickson, D. K., Goh, V., Bhujwalla, Z. M., & Krupinski, E. A. (2020). The impact of the COVID-19 pandemic on the radiology research Enterprise: Radiology scientific expert panel. *Radiology*. <https://doi.org/10.1148/radiol.2020201393>
- [66] Yang, M., & Gabrielsson, P. (2017). Entrepreneurial marketing of international high-tech business-to-business new ventures: A decision-making process perspective. *Industrial Marketing Management*, 64, 147-160.
- [67] Whalen, P., Uslay, C., Pascal, V. J., Omura, G., McAuley, A., Kasouf, C. J., ... & Deacon, J. (2016). Anatomy of competitive advantage: towards a contingency theory of entrepreneurial marketing. *Journal of Strategic Marketing*, 24(1), 5-19.
- [68] Yigitcanlar, T., Desouza, K. C., Butler, L., & Roozkhosh, F. (2020). Contributions and risks of artificial intelligence (AI) in building smarter cities: Insights from a systematic review of the literature. *Energies*, 13(6), 1473.
- [69] Yurtkoru, E.S., Acar, P. and Teraman, B.S. (2014), "Willingness to take risk and entrepreneurial intention of university students: an empirical study comparing private and state universities", *Procedia - Social and Behavioral Sciences*, 10th International Strategic Management Conference, Vol. 150, pp. 834-840.
- [70] Zeng, Z., Chen, P. J., & Lew, A. A. (2020). From high-touch to hightech: COVID-19 drives robotics adoption. *Tourism Geographies*, 22(3), 724–734. <https://doi.org/10.1080/14616688.2020.1762118>
- [71] Zhang, S. X., Liu, J., Jahanshahi, A. A., Nawaser, K., Yousefi, A., Li, J., & Sun, S. (2020). At the height of the storm: Healthcare staff's health conditions and job satisfaction and their associated predictors during the epidemic peak of COVID-19. *Brain, Behavior, and Immunity*.
- [72] Zhang, S. X., Sun, S., Jahanshahi, A. A., Alvarez-Risco, A., Ibarra, V. G., Li, J., & Patty-Tito, R. M. (2020). Developing and testing a measure of COVID-19 Organizational Support of Healthcare Workers—Results from Peru, Ecuador, and Bolivia. *Psychiatry Research*, 113174.
- [73] Zhang, J., Raza, M., Khalid, R., Parveen, R., & Ramírez-Asís, E. H. (2021). Impact of team knowledge management, problem solving competence, interpersonal conflicts, organizational trust on project performance, a mediating role of psychological capital. *Annals of Operations Research*, 1-21.