Social Media Adoption On Smes' Performance: An Analysis Of Content Framework

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Abstract

This content analysis aims to investigate how the Technology-Organization-Environment (TOE) framework can be used in the field of business management. The selected articles were confined within TOE framework, social media adoption as the mediator and small and medium sized-enterprises' (SMEs) performance in Bikaner-Rajasthan. A total of 15 articles were regarded as fitting the scope. The articles were analysed using the QSR NVivo 10 software in which coding and categorisation of the attributes according to thelist of nodes were performed. As a result, the content analysis suggests that technological, organizational and environmental context sub-dimensions could be considered for theTOE framework in future research. Apart from that, future researchers could refer to the frequency analysis performed on those 15 articles in providing practical recommendations and guidelines for SME managers to effectively leverage social media platforms to enhance performance within the TOE framework. Overall, this research provides a comprehensive and systematic approach to studying the impact of social media adoptionon SMEs' performance.

Keywords: Categorising; coding; content analysis; SMEs' performance; social mediaadoption; TOE framework

INTRODUCTION

A 2022 survey conducted by University researchers revealed that the household income in Khara- An industrial Area in Bikaner was the one of the lowest among in Bikaner district with 85.3 per cent of them was below the average total of household income in Bikaner district. On top of that, the incidence of poverty in Kharawas 12.4 per cent in which placing the area with one of the poverty in Bikaner district after (19.5%) (Hirschmann, 2021). As Bikaner economy grew moderately in 2019, Khara's contribution to Rajasthan's total growth domestic product (GDP) rose to 5.3 per cent compared to 2018 with 2.6 per cent, in which placed the state as one of the seven states that grew at a faster pace than the national growth with 4.3per cent. Nonetheless, with thousands of distributed SMEs in Khara it still had not reached the national level GDP per capita in 2019, and it was recorded as the lowest in Bikaner district in 2020.

Additionally, Khara's income per capita in 2020 was 51.8 per cent below the national average. In parallel to the statistics, SMEs' performance in Khara was found to be declining between the year 2011 and 2016 by 0.7 per cent despite the fact that many opportunities had been offered by the state government in encouraging the development of SMEs and entrepreneurship.

Both GDP and income per capita are related with current Bikaner long-term strategy in being a prime entrepreneurial nation by 2030, which is in the fourth core elements in the National Entrepreneurship Policy 2030 that aims to spur the economic growth through innovation-based enterprises (Ministry of Entrepreneur Development, 2019). This policy is hoped to drive the entrepreneur's sector to achieve 50 per cent of contribution to the nation's GDP by 2030.

In relation to the same policy, all SMEs entrepreneurs were encouraged to adopt the information and communication technology (ICT) applications such as the social media in operating their business digitally. However, studies showed that some firms avoid social media adoption due toinadequate technical skill and trust factors (Nisar and Shafiq, 2019), as well as low understanding of social media usage (Sangi et al., 2018). These could have been the reasons that have widened the adopters' and non- adopters' gap in Khara's SMEs' context.

Given by the fact that upcoming technologies are going to be significant to be adopted by the SMEs,the mediating role of social media adoption and SMEs' performance in Khara should be investigated for any direct or indirect effect of TOE constructs, that are still few being done by scholars (Cao et al., 2018).

Furthermore, the social media adoption is found to be helpful, on performance of the SMEs whichcould be categorized into technological, organizational and environmental contexts (TOE) (Qalati et al., 2021; Samat et al., 2018; Tajudeen et al., 2018). Despite vast social media studies or articles had been published by researchers around the globe, not many were showing a direct relation to the mediating role of social media adoption, as many often covered the marketing domain (Misirlis and Vlachopoulou, 2018; Roy et al., 2020). In addition, with many literatures showed entrepreneurs were using social media actively, systematic research on social media and SMEs were still minor (Qalati et al., 2021; Olanrewaju et al., 2020).

The SME's performance is related to the fifth core elements of the National Entrepreneurship Policy 2030 aforementioned, that strategizes to boost the capability and performance of micro, small and medium enterprises

(MSMEs).This core adopted four strategies suchas strengthening the implementation of development programme for vendors, enhancing the skills and capabilities of entrepreneurship of the MSMEs, providing the market access support and empowering the management of supply chain (SMECorp, 2019).

Hence, the suggested research aims to conduct a content analysis study of the Technology - Organizational-Environment (TOE) framework and examine the mediating role of social media adoption on small and medium-sized enterprises' (SMEs) performance. The study proposes to investigate the adoption of the TOE framework among SMEs and analyse the factors influencing its implementation. It also suggests analysing the extent of social media adoption by SMEs and exploring the factors influencing their decision to adopt social media platforms. The research intends to assess the impact of social media adoption as a mediatoron the relationship between the TOE framework and SMEs' performance outcomes. Furthermore, the study aims to evaluate SMEs' performance in terms of financial indicators, market performance, and operational efficiency, while considering industry-specific and environmental contexts. The research will provide valuable insights and practical recommendations for SME managers and entrepreneurs regarding the effective utilization of the TOE framework and social media to enhance their business performance.

LITERATURE REVIEW
TOE Framework
If we can consider the developer as someone with a hammer and a nail searching for two pieces of wood to bring together, we can consider the user as someone with two pieces of wood who is searching for the best method of attaching them (Depietro et al., 1990). Though there are several of choices that can be selected by the user, such as screws, glues, or staples; the big question mark here how are the choices made and what influences those choice? In nowadays context, business processes and business models are affected bytechnology adoption (Habİboğlu et al., 2020). Based on literatures, researcher analyzes the behaviors of organization towards recent technologies, as well as analyzes the impact of information system (IS) adoption on achieving desired performance. Dwivedi et al. (2012) presented detailed descriptions of theories to investigate technology adoption in their Vol. 1 and Vol. 2 books like DeLone and McLean's Success Model, Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), Resource-Based View (RBV), Diffusion of Innovations (DOI), Discrepancy Theory models, and others(Dwivedi et al., 2012) and many recent scholars also made their studies on these theories significant to the many enterprises' stakeholders. However, this study focuses specifically on TOE framework by literature content analysis.

The contexts of technological innovation were made known to many previous and recent scholars inthe TOE framework by Tornatzky and Fleischer (1990) that highlighted three elements of a firm's context; organizational context, technological context, and environmental context; that affects the process of adopting technological innovations (Depietro et al., 1990; Habİboğlu et al., 2020). TOE framework is claimed to possess a more holistic approach than other IS thoeries, models and frameworks because it caters to the organisational and environmental aspects, rather than only focusing on technology adoption (Ullah et al.,2021; Tajudeen et al., 2018). In addition, TOE framework provides solid experimental support and a robust theoretical basis in technology adoption, including social media (Qalati et al., 2021; Samsudeen et al., 2021).

TOE framework explains the best on how technological innovation adoption happens at the small and medium-sized enterprises' (SMEs) level by stating all three wide contexts that influence the innovation adoption, implementation, and usage (Habİboğlu et al., 2020). The technological context illustrates both the internal and external technologies that are relevant to the enterprises by such as the technology availability (Qalati et al., 2021) and characteristics (Samsudeen et al., 2021). The organizational context has several descriptive measures such as the size of the enterprises, the managerial structure that relates to centralization (Tajudeen et al., 2018), complexity (Habİboğlu et al., 2020) and formalization (Qalati et al., 2021), human resources' quality (Tajudeen et al., 2018), internal slack resources amount, informal linkages between employees (Ullah et al., 2021), internal communication and decision making. While the environmental context is the ground in which an enterprise conducts its business that includes the industry (Qalati et al., 2021), competitors (Tajudeen et al., 2018), access to others' resources supply, and government regulations (Samat et al., 2020).

SMEs' Performance in Khara
The broadband penetration rate per inhabitants in Khara was increasing in four years; 2016 (64.10), 2017 (75.70), 2018 (87.20) and 2019 (94.85) that indicated the growth usage of internet among people in Khara, whereas one of the usages was being benefited by small and medium enterprises (SMEs) in the state. According to the distribution of SMEs in Rajasthan and comparing among the east coast states in the year2016, Khara recorded the highest percentage of SMEs with 5.1 per cent while Pahang was in the second place with 4.1 per cent and followed by Terengganu with only 3.2 per cent. It also showed the increasing total of established SMEs in Khara between the year 2011 (N = 37, 823 SMEs; % = 5.9) and 2016 (N = 46,618 SMEs; % = 5.1).

Nevertheless, SMEs performance in Khara was found to be decreasing over the past five years, in contrast to other nearby rural areas in Bikaner is due to the decreasing percentages of the SMEs' distribution in the state although many opportunities have been offered by the state governments in supporting and encouraging the entrepreneurship in SMEs. This includes the encouragement by the Ministry of Entrepreneur Development and Cooperatives (MEDAC) to all SMEs' entrepreneurs to be adopted to the information and communication technology (ICT) applications as their marketing platform or in particular the used of social media.

Social Media Adoption

The social media adoption among entrepreneurs in SMEs around the globe has gained attention in these couple of years due to the pandemic outbreak of Covid-19. Based on the survey findings in 2020, majority people in Bikaner used social media (86.5%) as online content sharing platform with Facebook remains the most popular social networking applications in 2020 (91.7%), followed by YouTube (80.6%), Instagram (63.1%), and Twitter (37.1%); while WhatsApp ranks first among all communication applications in the same year (98.7%) followed by Facebook Messenger (53.9%), Telegram (40.1%) and WeChat (27.7%). Interestingly, 71.8 per cent of the social media users shared their contents via the platform as it was beneficial, though only 47 per cent of them feels secured when using the internet (Rajasthann Communications and Multimedia Commission, 2020). Although the growth of Bikaner's digital economy as a percentage of the national GDP is still considered the lowest and slowest. In encouragingeconomic growth and providing more comprehensive globalization that are significant to the restructuring industries and the transformation of digitalization, strategic insights establishment into the adoption of social media by SMEs can be considered as essential.

Though social media studies, or articles have been published by researchers around the globe, not many are showing a direct relation to the mediating role of social media adoption, as many often cover the marketing domain (Misirlis and Vlachopoulou, 2018; Roy et al., 2020). In addition, with many literaturesshow entrepreneurs are using social media actively, systematic research on social media and SMEs are still minor (Qalati et al., 2021; Olanrewaju et al., 2020). Given by the fact that upcoming technologies are going to be significant to be adopted by the SMEs, the mediating role of social media adoption and SMEs' performance in Khara should be investigated for any direct or indirect effect of TOE constructs, that are still few being done by scholars (Cao et al., 2018).

In conjunction to the literatures on the SMEs, the social media adoption is found to be helpful, not onlyon the performance but also marketing costs, customers' reach, and partnerships for future growth of the SMEs' which could be categorized into technological, organizational and environmental contexts (TOE) (Qalati et al., 2021; Samat et al., 2018; Tajudeen et al., 2018). Hence, to gain a fuller understanding of factors that might be mediated by the social media adoption among SMEs in Khara, in-depth quantitative research is required. Focusing on the three contexts (TOE) can help in identifying the most significant factors that influence SMEs' performance in Khara.

METHODOLOGY

Content analysis was used in this study to evaluate the data gathered. Content analysis was briefly defined as the analysis of message characteristics that are systematic, quantitative and objective in which includes human-coded analyses and computer-aided text analysis (CATA) (Neuendorf, 2017). In Saldana (2013), content analysis was defined as the qualitative and quantitative analysis that's systematically done on the contents of a data corpus such as audio, texts, videos, etc. (Saldaña, 2013). While early definition given by Krippendorf (1980) specified that this analysis is one of the research techniques that used to provide repeatable and valid findings from the data, which agreed to Stone et al.'s (1966) definition of content analysisthat could draw unbiased and systematic results from certain traits mentioned in a text (Habİboğlu et al., 2020).

Research Question

In guiding the content analysis writing, a research question was built. It was 'What are the key component andvariables within the Technology-Organizational-Environment (TOE) framework that influence small and medium-sized enterprises' (SMEs') performance?'. The question aimed to conduct a content analysis of the TOE framework, exploring its key components and variables that impacted SMEs' performance, and also sought to understand the interplay between these components and their respective contributions to SMEs' overall performance outcomes.

Content Analysis Search Strategy

The content analysis search strategy started by identifying keywords and phrases that were related to this research title such as 'technology-organizational-environment framework', 'TOE framework', 'social media adoption', 'small and medium-sized enterprises', and 'SMEs' performance'. Academic databases, search engines, and online repositories were utilized in searching for scholarly articles, research papers, case studies, and reports. Among the databases that were searched were IEEE Xplore, ACM Digital Library, Google Scholar, and ScienceDirect whereas the keywords and phrases were combined using Boolean operators (AND,OR) in refining the search such as:

1. "technology-organizational-environment framework" AND "social media adoption"AND "SMEs' performance"
2. "technology-organizational-environment framework" AND "social media adoption"AND "small and medium-sized enterprises" AND "SMEs' performance"
3. "TOE framework" AND "social media adoption" AND "small and medium-sizedenterprises" AND "SMEs' performance"
4. "technology-organizational-environment framework" OR "TOE framework" AND"small and medium-sized enterprises" OR "SME" AND ""SMEs' performance"

The interrogation primarily produced 56 articles from the databases. Using Mendeley, it excluded 15 duplicate articles and then 8 non-relevant articles based on titles and abstract. Based on the inclusion and exclusion criteria in Table 1, 12 papers were excluded. Finally, only 15 articles were left after exclusion was made based on the quality assessment questions (QA) in Table 2.

Table 1 The Inclusion and Exclusion Criteria

Criteria	Included articles	Excluded articles
Language	English	Non-English
Document availability	Full-text	No full-text
Published period	2017-2021	Out of the period
Document type	Journal articles and conference proceeding only	Full thesis, conference foreword, magazine articles, lecture's modules, etc.

Table 2 The Quality Assessment Questions (QA)

QA	Included articles
QA1	Do the themes of this research title were addressed within the criteria?
QA2	Do the articles deliver the research objectives clearly?
QA3	Are the methodology being discussed in detail in the articles?
QA4	Are the findings of the research being revealed in the articles?

QSR NVivo10 Software

QSR NVivo10 software is a powerful tool used for qualitative data analysis, including content analysis (Cresswell and Clark, 2017). Hence, QSR NVivo10 was utilized to facilitate the content analysis process. In this study, the software was used to import the selected articles and organize them within a project file. Using the provided tools for coding and categorizing data, a coding scheme was created based on the research objectives and predefined sub-dimensions, such as the TOE framework contexts and its sub-dimensions, research sample sizes, TOE framework research and analyzing methods and the codes were all assigned to specific segments of the articles that correspond to these categories.

Then, it generated reports, visualizations, and queries to examine patterns, relationships, and frequencies of specific codes or categories. It also assessed inter-coder reliability and made annotations aswell as writing memos within the software such as presenting the record observations, interpretations, and

reflections during the content analysis process, helping to document analytical insights and support the generation of findings. All tables, charts, and graphs were exported to present the findings in a clear and organized manner, supporting the interpretation and discussion of the research outcomes.

The frequency analysis and the content analysis were fully done in QSR NVivo10 software. All results and findings were shown in tables with comments and discussions.

RESULTS AND DISCUSSION

Frequency analysis and content analysis were applied to categories in QSR NVivo10 software in running the data analysis. The following tables present the analysis made for every category. The objective results are achieved via the originality formats loyalty whereas the stated statements in all tables were taken directly fromall 15 articles.

Table 3 Focus on Technology of Research (Subjects)

No.	Code	Frequency of articles	Percent (%)	Frequency of Repetition in the Article
1.	E-business adoption	6	40	8
2.	E-commerce adoption	8	53.3	76
3.	Social media adoption	6	40	111
4.	Electronic data interchange (EDI) adoption	5	33.3	6
5.	TOE framework	8	53.3	91
6.	SMEs' performance	12	80	74

Within the TOE framework, the technological focus of the research is shown in Table 1. The most repeated statements were 'social media adoption' (N of repetition = 111), followed by 'E-commerce adoption'(N of repetition = 76). Based on this table, it could be stated that the TOE framework can be appropriate model for investigating the social media adoption for electronic commerce (Habİboğlu et al., 2020).

Table 4 Sub-Dimensions of Technological Context in TOE Framework

No.	Code	Frequency of articles	Percent (%)	Frequency of Repetition in the Article
1.	Technological context	6	40	23
2.	Cost	13	86.67	78
3.	Interactivity	3	20	41
4.	Trialability	1	6.67	10
5.	Complexity	3	20	19
6.	Perceived benefits	2	13.33	18
7.	Service quality	5	33.33	5
8.	Uncertainty	5	33.33	17
9.	Compatibility	6	40	69
10.	Structural assurance	1	6.67	15
11.	Cost of adoption	2	13.33	3
12.	Perceived ease of use	2	13.33	62
13.	Perceived compatibility	2	13.33	15

14.	Relative advantage	7	46.67	47
15.	Perceived trust	1	6.67	51
16.	Observability	1	6.67	10
17.	Perceived benefits	2	13.33	18
18.	Perceived usefulness	2	13.33	67

A total of 18 determined sub-dimensions of technological context as shown in Table 2 is one of the main contexts of the TOE framework. Through the content analysis and numbers of repetition of the phrase or word in the articles, the five most frequently referred to were 'cost' (N of repetition = 78), 'compatibility' (N of repetition = 69), 'perceived usefulness' (N of repetition = 67), 'perceived ease of use (N of repetition = 62) and 'perceived trust' (N of repetition = 51). These sub-dimensions could be under high consideration to be used as dimensions for technological construct in the proposed conceptual TOE framework.

Table 5 Sub-Dimensions of Organizational Context in TOE Framework

No.	Code	Frequency of articles	Percent (%)	Frequency of Repetition in the Article
1.	Scope	2	13.33	4
2.	Size	6	40	17
3.	Top management support	4	26.67	25
4.	Entrepreneurial orientation	4	26.67	29
5.	Readiness	6	40	26
6.	Global scope	1	6.67	1
7.	Innovativeness	4	26.67	7
8.	Financial resources	5	33.33	8
9.	Knowledge	13	86.67	73
10.	Resource constraints	2	13.33	2

Table 3 shows the sub-dimensions of the TOE framework for the organizational context. The five mostused variables were 'knowledge' (N of repetition = 73), 'entrepreneurial orientation' (N of repetition = 29), 'readiness' (N of repetition = 26), 'top management support' (N of repetition = 25), and 'size' (N of repetition = 17).

Table 6 Sub-Dimensions of Environmental Context in TOE Framework

No.	Code	Frequency of articles	Frequency of Repetition in the Article
1.	Industry	15	94
2.	Small and medium-sized enterprises (SMEs)	15	694
3.	Government support	4	26
4.	Bandwagon pressure	1	9
5.	External pressure	2	2
6.	Competitive environment	2	2
7.	External support	1	1
8.	Competitive pressure	4	12
9.	Regulatory support	2	3

Meanwhile, for the sub-dimensions of the TOE framework for the environmental context, the four mostused codes across 15 articles were the 'small and medium-sized enterprises (SMEs)' (N of repetition = 694), 'industry' (N of repetition = 94), 'government support' (N of repetition = 26), and competitive pressure (N of repetition = 12).
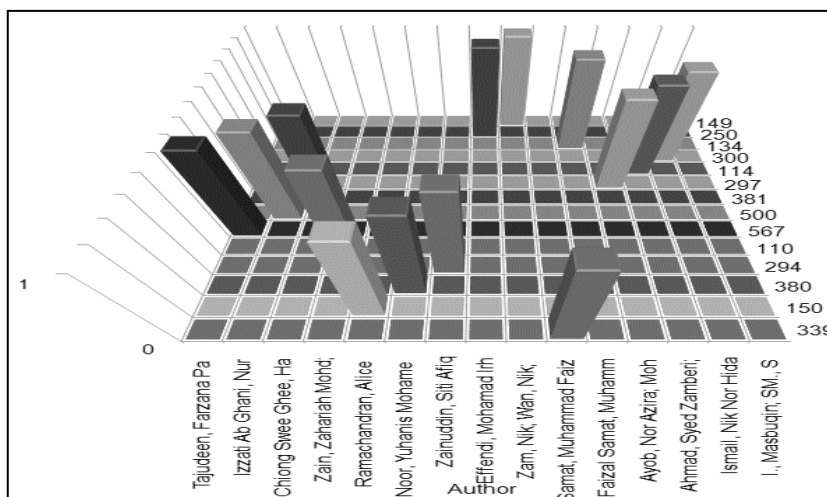

Figure 1 TOE Framework Sample Sizes

NVivo 10 was also used to generate results for frequency analysis of all 15 articles that were reviewed. Figure 1 shows the sample size in the reviewed studies. The biggest sample size was 567 in the study performed by Tajudeen et al. (2018) and the smallest sample size used for the study's framework was 110 by Zain et al. (2020). Masbuqin et al. (2020) didn't mention their sample size. Therefore, these results may be used as suitable range of sample sizes for TOE framework research; 110 to 567 samples.

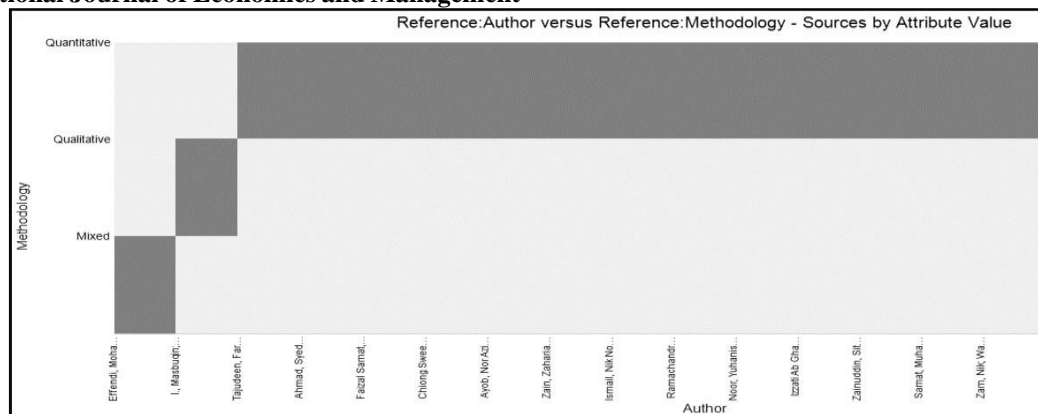**International Journal of Economics and Management**

Figure 2 TOE Framework Research Methods

The research methods used in the reviewed articles are shown in Figure 2. According to the data, most researchers used quantitative methods (N of articles = 13; % of frequency = 86.67). Masbuqin et al. (2020) preferred qualitative method, while Effendi et al. (2020) used mixed method. In addition, the data collection methods that were used for each research methods were survey (quantitative), literature review (qualitative) and the combination of survey and in-depth interview (mixed).
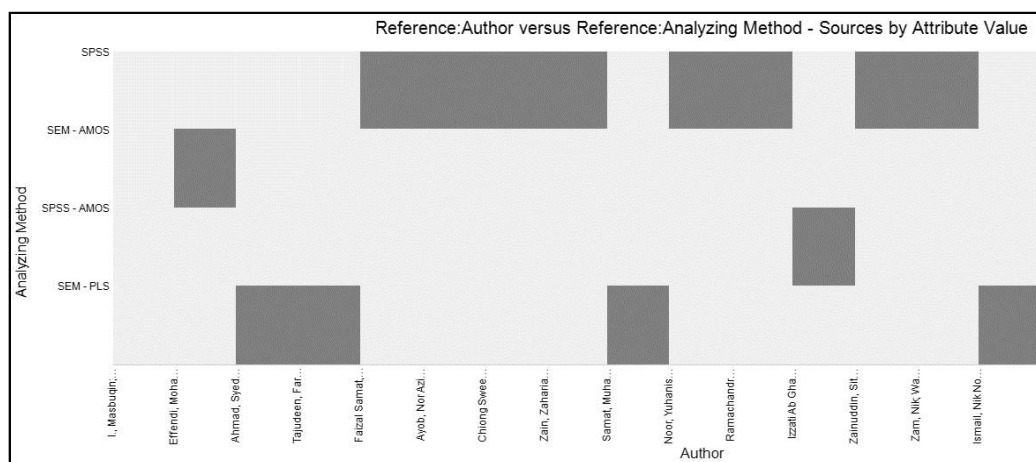

Figure 3 TOE Framework Analyzing Methods

Based on the frequency analysis chart result in Figure 3, it is seen that Statistical Package of Social Sciences (SPSS) software was the most used analysis method among the 15 articles reviewed.

With reference to the literature that were reviewed, the sub-dimensions of the TOE framework and the effects of these dimensions were examined using the NVivo 10 software. Ahmad et al. (2019) stated that small and medium-sized enterprises (SMEs) could communicate information and respond to competitors through social media technologies with minimal cost due to its minimal technical requirements. So, SMEs must not ignore the performance necessity in terms of cost reduction to compete successfully (Ayob et al., 2019).Samat et al. (2018) agreed that social media adoption among SMEs was influenced by the technologicalfactors such as compatibility, cost effectiveness and interactivity due to increasing numbers of social media users' presence. In addition, social media was claimed to be an important element of marketing strategy among small enterprises by Ramachandran et al. (2020) as the ability to rapidly achieve targeted consumers and gain more sales because of its cost-effectiveness; and agreed by Samat et al. (2020). This claim was strengthened by Tajudeen et al.'s (2018) statement that cost-effectiveness nature of social media attracts not only large multinational organizations but also SMEs and governmental agencies. However, SMEs in Indonesia thought that the cost of using social media was very high (Effendi et al., 2020) which were the significant barrier to e-commerce adoption in the country. Zain et al. (2020) agreed that the cost adopting e- commerce infrastructure was expensive for SMEs in developing countries.

Effendi et al. (2020) defined the term 'compatibility' in their article with reference to the Diffusion of Innovation (DOI)

theory that "the compatibility of innovation defines with existing systems in an organizational environment". Social media adoption was reported by Samat et al. (2018) and (2020), Tajudeen et al. (2018), to have positive or significant relationship with compatibility. In contrast, Ahmad et al. (2019) found that there was no significant relationship between compatibility and social media adoption.

Ramachandran et al. (2020) who investigated the social media adoption among Halal SMEs using the theory of Technology Acceptance Model (TAM), indicated that perceived usefulness, perceived ease of use and perceived trust. The findings showed that there was a significant strong positive relationship exists between perceived usefulness, perceived ease of use and perceived trust and the adoption of social media adoption, with perceived usefulness found to have the most influence on the adoption of social media in food and beverage industry at Halal SMEs.

Technology is seen as the current level of knowledge in economics, whereas resources could be combined in producing desired products (Ghee et al., 2020). Firms should expose themselves to scientific, industry knowledge and insights of the latest technological breakthrough that is beneficial for companies (Effendi et al., 2020). At the same time, Effendi et al. (2020) claimed that top management seeking more knowledge about social media in increasing their social media awareness. However, most SMEs' knowledge about social media applications weren't adequate as they did not fully understand the usage (Effendi et al., 2020) and it's supported by Samat et al. (2018). Zain et al. (2020) explained that the websites were often applied for communication and products' promotion. However, Zainuddin et al. (2020) argued that sharing information, knowledge and experiences about products could be developed via virtual groups as business strategy and motivation. Thus, limited knowledge in conducting business was one of the barriers for many firms (Zam et al., 2021). Entrepreneurial orientation drives small business performance that's affected by its culture and environment (Ayob et al., 2019). This was supported by Tajudeen et al. (2018) with a study that showed entrepreneurial orientation as an important factor of social media usage. They defined the term as the methods,practices, and decision-making styles that were used by managers in acting entrepreneurially and it eagerly embarked upon experimentation and new ideas (Tajudeen et al., 2018). Therefore, the readiness of organizational and entrepreneurial should be equipped by companies to adopt to the technologies and innovations (Ghani et al., 2020).

Above all of that, the decisions for the firm to adopt social media was by top management support (Ahmad et al., 2019). Effendi et al. (2020) stated that the web 2.0 adoption and awareness of SMEs' managers' IT adoption could be influenced by top management support. However, Tajudeen et al.'s (2018) finding was contradicted to most previous studies, whereas they found that top management support was not a significant factor for technology adoption.

All 15 articles discussed the elements of technological, organizational, and environmental as factors that relate to small and medium-sized enterprises (SMEs). The focus on social media adoption was made across industry segments, characteristics, and structure that gave the adopter a competitive advantage (Ahmad et al., 2019), as the competition among the industry players was emerging (Ayob et al., 2019). Ramachandran et al. (2020) and Noor et al. (2019) agreed that SMEs are the great contributor to Rajasthan's income as the government appointed certain agencies to encourage and support the SMEs industry in the current market; andindividuals or firms with certain industry specialty could increase a chance to survive longer. Effendi et al. (2020) brilliantly argued that government support through legislation could either motivate or prevent the technological innovations adoption. It tended to hinder adoption if the regulations had strict controls. But ifthe regulations could provide resources, or support, the adoption would be encouraged (Effendi et al., 2020). This did not deny the influenced of competitive pressure in the adoption process as it was claimed to have significant impact on social media adoption intention (Ahmad et al., 2019). Zainuddin et al. (2020) explained that when an organization aware that more enterprises in the same industry used social commerce in business, the organization was said to be under competitive pressure. This was not a bad environment because the greater an organization felt pressure from competitors, the more it will adapt to technology innovations for a more effective competition (Zainuddin et al., 2020).

CONCLUSION

This paper reported the content analysis that analyzes the prior research that used TOE framework for social media adoption among SMEs. It aims to present a guidance for future research via critical factors identifications. Tornatzky and Fleischer (1990) were pioneers who proposed the three main contexts and sub- dimensions related to innovation adoption: technological, organizational, and environmental. The research focuses on investigating how social media adoption affects SME performance within the TOE framework. It examines the current adoption levels and factors influencing SMEs' use of social media. The study identifies key components and variables of the TOE framework relevant to social media adoption and explores their impact on SME performance. It analyzes the relationship between social media adoption and financial, market, and operational performance indicators. The research also investigates mediating factors and barriers to adoption, and considers industry-specific variations. The findings provide practical recommendations for SME managers to effectively leverage social media for improved performance within the TOE framework.

A total of 15 articles were fully reviewed using the QSR NVivo 10 software for both content analysis and frequency analysis that has resulted in categorizing the technological context sub-dimensions, organizational context sub-dimensions, and environmental context sub-dimensions for further research actions. By utilizing the software, researchers can streamline the content analysis process, efficiently organize and code data, explore patterns and themes, and generate visualizations and reports. It provides a systematic and structured approach to content analysis, enhancing the reliability, validity, and efficiency of the research. The fact strongly shows that the software that was claimed to be used by only qualitative researchers could also be beneficial to quantitative researchers, in performing the literature review. If

previously the literatures were reviewed manually and took longer hours, with NVivo it could be done digitally and in short period. However, deeper knowledge and skills in using the software should be possessed before a researcher could have more accurate and better reviews.

This current paper has its main contribution to the literature in the areas and variables of TOE framework. Future researchers who will perform studies in entrepreneurship and marketing management could refer to the discussion as a guidance.

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