

A Multidimensional Approach using TAM, UTAUT and TOE to determine social media marketing adoption among MSMEs

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Abstract

Businesses have started intense use of social media and its related platforms to engage with its stakeholders as a part of their top-level management strategy. These Social media platforms offer wide opportunities for marketing products and help in increasing the visibility of MSME products. The main objective of this study is to find the key factors or drivers that support Indian MSMEs in adopting social media marketing (SMM) strategies into the regular practice. Social media marketing has shown a considerable impact on business performance of MSMEs. To investigate the drivers that impact social media marketing adoption among MSMEs, a theoretical model has been built using multidimensional approach of TAM, UTAUT and TOE. The theoretical model was tested empirically via a survey of 140 MSMEs in Delhi, and the data analysis was performed using SPSS. The result highlights that adoption factors like perceived ease to use (PETU), perceived usefulness (PU), facility conditions (FC), social influence (SI) and individual factors (IND) affect social media marketing adoption among MSMEs.

Key words: TAM, UTAUT, TOE, Social media marketing, MSMEs

Introduction

The Indian economy's Micro, Small, and Medium-Sized Enterprises (MSME) sector has grown to be one of its most vibrant and dynamic during the last 50 years. It significantly contributes to the country's social and economic advancement by encouraging entrepreneurship and creating a vast number of job possibilities. To satisfy the needs of the local and international markets, MSMEs are expanding their presence in a variety of industries and providing a broad range of goods and services (Chatterjee & Kar, 2020). The MSME Act states that MSME are categorized as a microbusiness that can generate up to five crore rupees in revenue and invest up to one crore rupees in plant and machinery. A small business that can have a sale of up to fifty crore rupees and an investment of up to ten crore rupees. A medium-sized business that can generate up to 250 crore rupees in revenue and invest up to 50 crore rupees. As per Indian MSME report, it is anticipated that by 2028, the Micro, Small, and Medium-Sized Enterprises (MSME) sector

in India will have expanded to \$1 trillion. With a compound annual growth rate (CAGR) of 2.5%, the country's MSMEs are expected to grow from 6.3 crore to roughly 7.5 crore. India's social and economic development is greatly aided by SMEs. They promote the nation's economy by making a substantial contribution to exports, job creation, and general economic growth (Ahamed & Raju, 2023). In India, MSMEs employ over 111 million people, making them a significant contributor to the labor force (Ministry of State for Micro Small and Medium Enterprises, 2022). MSMEs continue to confront obstacles in adopting new technologies, which restricts their expansion even though they make a substantial contribution to the Indian economy. Their capacity to successfully adopt new technologies is hampered by problems such a lack of knowledge, inadequate professional assistance, and compatibility issues (D. Singh, 2019). Furthermore, MSMEs face issues in developing brand identities, marketing and sales, and adjusting to evolving marketing tactics. In order to overcome these challenges, social media and

ICT integration could be effective strategies to increase their technology proficiency and general business expansion (Ahamed & Raju, 2023). Given this, it is crucial to investigate if social media use could support the general growth of India's SMEs. Research on factors that derive MSMEs to adopt social media has been found to be lacking when it comes to integration of different technological adoption theories (Alhakimi & Mahmoud, 2020; Chatterjee & Kar, 2020).

According to recent surveys, consumers are increasingly using social media platforms to discover new businesses, goods, and services. Given this, it would be insightful to investigate how companies are using these platforms to speed up their expansion and what are the factors that motivate them to adopt this change (M. Bouteraa, 2024). Given this, it's critical to investigate if social media use may support the general expansion of SMEs in India. SMEs may use social media to gather valuable consumer input and enhance their branding (R. Hurdawaty & M. Tukiran, 2024). SMEs are more inclined to use social media if they think it's accessible, user-friendly, and meets their needs. Social networking is thought to be an essential tool for bringing together SMEs and potential customers. Social media marketing (SMM) is the term used to describe how businesses use social media to communicate with their customers and support their operations (Dwivedi, Rana, & Islam, 2019). Examining the factors that influence MSMEs' use of social media marketing for their companies is crucial in this respect.

Using a mix of theoretical lenses that are further explained subsequently, we seek to investigate the following two research issues in this study.

1. To identify the factors that influence the adoption of social media marketing among MSMEs by integrating constructs from TAM, UTAUT and TOE theory of adoption.
2. To develop a conceptual framework based on these identified factors for understanding SSM adoption in MSMEs.

The structure of this study is as follows: The theoretical underpinning for the proposed model is built after a review of the literature. The analysis's findings and the research techniques are subsequently presented. The discussion section discusses the theoretical and practical implications of the findings. The study's shortcomings are later reviewed, and the final round of conclusions is finished.

Literature Review

When discussing the advancement of the global economy, we must acknowledge the critical role that the (MSMEs) segment plays. MSMEs are a force that can alter economic paradigms; they are not merely minor participants in the corporate world but also contributing in Increasing the Global Economic Sustainability (D. Singh, 2019). The research shows that Increasing MSMEs' competitiveness in the global market can be accomplished through the use of sustainable product innovation of local resources (B. Irawan et al., 2023). Looking at the growth of MSMEs and its contribution in economic growth there is need for an effective solution that enables MSMEs' substantial growth. In this regard, SMEs' financial health can be enhanced and improved with the application of (ICT) (Consoli, 2012). By using ICT, SMEs may improve financial management, open up new markets, and streamline operations (D. Singh, 2019). All of which will boost their competitiveness and spur growth in a world economy that is changing quickly (Chatterjee & Kar, 2020). The use of ICT in SMEs attracted a lot of interest in the 1980s since small and personal computers allowed companies to successfully cut operating expenses (Alam & Noor, 2009) Numerous ICT-based solutions have helped SMEs succeed throughout time. Notably, social media and mobile devices have developed into effective instruments for promoting communication between consumers and other businesses as well as between enterprises and their clients (Consoli, 2012). Social media is a group of web-based tools that make it easier for people to create and share user-generated content, according to Aldahdouh et al. (2020). Several studies have looked into how social media affects a company's

business operations. The study by Shaikh et al. (2018) looks at how social media affects brand awareness and its visibility. According to (Guha et al., 2021) social media platform helps MSMEs in brand promotion, Guha examined impact of social media on handicraft industry. Social media includes anything from word-of-mouth to online activities like blogs, consumer-to-consumer emails, moblogs, social networking sites, and so forth (Chatterjee & Kar, 2020). When the organisations use social media in its day-to-day operation in order to connect with its customers and other stakeholders it is refers to social media marketing (SMM) (Shaikh et al., 2018). The operations of SMEs are significantly impacted by this SMM (Dwivedi et al., 2015). There are number of factors that impact the adoption of SMM among MSMEs in India like age, gender, infrastructure, top management support and demographic characteristics of an entrepreneur and so on (Dwivedi et al., 2015; Ahamed & Raju, 2023). It is vital to consider other significant facets of social media application techniques for marketing while focusing on these characteristics in order to assist SMEs in expanding their enterprises. Research shows that MSMEs' usage of SMM is yielding significant benefits in other nations. But still adoption of social media platforms for marketing purpose is at very early stage in India and what factors contribute maximum to the adoption in Indian context and environment will be interesting to study. (Alam & Noor, 2009; Guha et al., 2021; R. Hurdawaty & M. Tukiran, 2024).

Theoretical background

There are significant concerns over India's Small and Medium Businesses' (SMEs) use SMM technologies. What motivates these enterprises to use social media marketing platforms? The main concern is comprehending the potential and difficulties that SMEs encounter when thinking about implementing new technologies, especially social media marketing (SMM), to improve their marketing. As a result, the main objective of this paper is to explore the critical factors that support or impact the incorporation of SMM technologies in Indian SMEs. To understand

this multidimensional approach is used by integration TAM, UTAUT and TOE theory to identify factors of SMM adoption among MSMEs.

TAM (Technology Acceptance Model)

The Technology Acceptance Model (TAM) was developed by Fred D. Davis in 1989 as a framework to understand how people evaluate and accept digital technology. It is frequently employed to gauge how well new information technologies are received and accepted by individual. According to TAM, Perceived ease of use (PEOU) and perceived usefulness (PU) are two key factors that impact a person's intention to accept technology. Perceived usefulness is the belief that a system would improve job performance, whereas perceived ease of use is the belief that a system will be simple to use (Davis, 1989). The Technology Acceptance Model (TAM) states that perceived usefulness (PU) and perceived ease of use (PEoU) have a direct impact on a person's attitude toward adopting technology. This, in turn, influences the person's intention and desire to use the technology, which in turn influences how they behave in the future when it comes to adopting new technology. MSMEs in developing nations deal with a number of challenges, including inventory management, client outreach, and product marketing. In order to market their goods and interact with clients, many entrepreneurs lack knowledge of or access to information and communication technology (ICT) (Salam et al., 2021). The Technology Acceptance Model (TAM) offers a methodology for assessing MSMEs' intentions to embrace ICT based on perceived utility (PU) and perceived ease of use (PEoU). According to (Nazir and Khan 2022) the perceived usefulness (PU) of ICT in developing economies is based on how MSME owners or managers see it as a tool to improve performance, productivity, and competitiveness in local and international markets. Similarly (Thathsarani and Jianguo 2022) emphasized that the owners' or managers' opinions of the technology's usability and ease of use ultimately determine whether or not

MSMEs choose to employ it for commercial objectives.

Table 1: Utilization of TAM in various studies

Predictor Variable	Dependent Variables	Limitation	References
knowledge about the course, contentment, attitude, perceived utility, system quality, perceived usability, and academic achievement.	online learning systems	Personal characteristics of users are missing	(Mustafa & Garcia, 2021)
Perceived usefulness (PU) perceived ease to use (PEOU), social norms and perceived enjoyment	Adoption of social network site by the students.	Data security factor that can impact attitude of learners.	(G.S, Leng et al., 2011)
Religiosity, perceived usefulness (PU), perceived ease to use	Integration of Metaverse in banks	Customer intention, trust, perceived risk, government aspect.	(H. Alshurafat et al., 2024)
Organisation support, colleague support, self efficiency, technology capacity, perceived ease to use (PETU), behaviour intention	Intention of university employes to adopt social media	Future research can include time and technical aptitude	(Nasongkhla & Shieh, 2023)
Perceived ease of use, perceived usefulness	willingness to view mukbang content	Future direction on study to check the impact on business performance	(H.G. Song, 2023)

In the preceding section the TAM, which emphasizes the influence of PU) and perceived ease of use (PEoU) on people's and entrepreneurs' intention to accept new technologies, was defined and its essential elements. TAM's broad application in understanding technology acceptance was demonstrated by numerous research that examined how to apply it across diverse sectors to investigate technology uptake. (Mustafa & Garcia, 2021) looked at how several factors affected the uptake of online learning systems, although they admitted that their study did not take user personal traits into account. Focusing on how students utilize social networking sites, (G.S, Leng et al., 2011) acknowledged the significance of data security in influencing students' attitudes while also emphasizing the influence of elements like perceived joy and enjoyment and social norms. As they looked into how banks may incorporate the Metaverse the researchers (H. Alshurafat et al., 2024) took into account elements such as government engagement, client intention, and trust. (Nasongkhla & Shieh, 2023)) investigated university staff members' intentions to use social media, focusing on organizational support and self-

efficacy. They suggested that future research take time and technical proficiency into consideration. (H.G. Song, 2023)) investigated the urge to watch Mukbang material and recommended more research to evaluate how social media adoption affects company performance. MSMEs in developing countries have to deal with a number of difficulties, such as reaching out to clients and promoting their goods. The majority of these entrepreneurs lack access to Knowledge or understanding of ICT and social media marketing for product marketing or customer outreach (Salam et al., 2021).

MSMEs' intents to use social media are evaluated by the TAM using Perceived Usefulness (PU) and Perceived Ease of Use (PEoU). According to (Nazir and Khan, 2022), MSME owners in developing nations see social media as a Important instrument for boosting competitiveness and productivity. According to (Thatsarani and Jianguo, 2022), opinions about social media's usability and convenience of use have an impact on adoption behaviour. It consequently influences how social media is used for business.

UTAUT (Unified Theory of Acceptance and Use of Technology)

Technology adoption is driven by users' behavioral goals, such as those of MSME owners or managers, according to Venkatesh et al. (2003)'s UTAUT model. Four major elements influence the chance of adopting technology: i) expectations for performance, ii) expectations for effort, iii) social influence, and iv) enabling conditions. Joshi et al. (2023) claim that UTAUT is one of the the best model considered for technology acceptance, accounting for as much as 70% of the disparity in technology adoption intentions (Kumar, Goel, Joshi, & Johri, 2024). Social Influence The term "social influence" (SI) describes how referees' opinions affect how each user adopts technology (Alwahaishi and Sn'aisel, 2013). Humans are sociable animals who frequently like to be in social groups. As a result, they frequently follow social conventions mindlessly. Kim and Lee (2022) define social influence as the pressure people experience to embrace digital technology when they see others utilizing it. People frequently accept new technologies and comply to social standards out of a sense of social obligation. As a result, even in the absence of a clear

personal need, the widespread use of technology may inspire others to do the same (Kumar, Goel, Joshi, & Johri, 2024). The scenario where it is expected that MSME owners and managers will have the resources and technological know-how to apply technology is referred to as "facilitating conditions" (FC). Furthermore, according to Lee et al. (2023), MSMEs are particularly concerned with the installation of ICT in the hopes of reducing operating expenses. Cost It might also be helpful for SMEs to adopt SMM in this case, as the UTAUT2 model interprets adoption behavior. Users in India, a rising economy, are constantly alert and wary about the financial effects of every action (Dwivedi et al., 2015). SMEs would be hesitant to adopt SMM if its use were not less expensive than the costs associated with traditional methods. The hedonic perspective is linked to a person's emotional and psychological perceptions, which can be influenced by personal characteristics and psychological states. Curiosity, interest, and appreciation of new technology are hedonic facilitators. In other words, a person's hedonic practice of using a technological product increases their willingness to participate in a fun and experimental activity (Dadhich et al., (2023).

Table 2: Utilization of UTAUT in various studies

Predictor Variable	Dependent Variables	Limitation	References
Facilitating- condition Performance expectancy, effort expectancy, social influence,	Behaviour intention to adopt social media	No limitation reflected	(Abdat, F. A. 2020)
Performance expectancy, effort expectancy, social- influence, technological characteristics.	Technology and intention to use social media in higher education teaching	Data security factor that can impact the attitude of learners	(Alwahaishi and Sn'aisel, 2013)
Hedonic Motivation, Habit, price, social factor, Performance expectancy, effort- expectancy, social influence	5 G utilisation among industry – academia.	Study limited to 5 G service Focuses on emerging countries, so findings may not be generalizable globally	(Dadhich et al., 2023)
Performance Expectancy, Effort Expectancy, Perceived Financial Cost, knowledge, and awareness , Technology Infrastructure Support, Government- Regulations	Adoption of mobile banking services (MBS)	Does not consider other potential external factors influencing adoption and extension of UTAUT	(Mensah, Khan, et al., 2024)

These are the challenges or gaps in UTAUT theory, often cited in studies that apply or extend the model (Venkatesh et al. 2003). The UTAUT model continues to be a key paradigm for comprehending the uptake of technology in a variety of industries, including online education, social media, and mobile banking. Additional variables including perceived financial cost, awareness, and government regulations have been progressively incorporated into the model to capture more complex aspects influencing adoption in response to the changing nature of technology and its wide range of uses (Dadhich et al., 2023). To improve the model's applicability across many contexts and groups, future research must address common limitations, especially those related to generalizability, sample techniques, and external influences. The results highlight the importance of social influence and performance expectancy, and even effort expectancy in influencing the adoption of technology. However, adding new elements to modified UTAUT models—

like government backing and awareness It offers a comprehensive grasp of the adoption procedure in real-world situations (Mensah, Khan, et al., 2024).

TOE (Technology organisation and individual theory)

The TOE framework (Tornatzky and Fleischer, 1990) is employed to examine the use of social media by various industries. Scholars hold the T-O-E theory in high acknowledged theory when it comes to adoption and integration of technology in an organisation, but it rarely specifically encourages task and individual aspects. The TAF and UTAUT theories examine both task and individual aspects H3 Social Influence (SU) has a favourable effect on the adoption of SMM among MSMEs. Because, at the organizational level, TOE is a more prevalent theory (Aldahdouh et al.2020) Nonetheless, some academics have pointed out that TOE lacks individual variables (Musawa, M. and Wahab, E. 2012).

Table 3: Utilization of TOE in various studies

Predictor Variable	Dependent Variables	Limitation	References
Personal Innovativeness	Social Media Adoption (SMA)	Personal innovativeness is a general idea that may not apply the same way in every industry or culture.	(H. O. Awa et al 2017)
Attitudes Toward Technology	Social Media Marketing Adoption	restricted to general views toward technology; particular sentiments toward digital marketing tools were not taken into consideration.	Venkatesh & Davis (2000)
Social - Influence	SSM Adoption	The applicability of social influence may be limited in some cultures and industries where it may be more successful.	Venkatesh, Morris, Davis, & Davis (2003)
Risk Perception	Social Media Marketing Adoption	The risk perception model might not account for all factors that affect adoption decisions, such as social and emotional factors.	Chen & Shang (2020)

The literature review's limitations draw attention to a number of important issues. First of all, the concept of personal innovativeness is wide and could not be applicable or relevant in every industry or cultural setting (H. O. Awa et al 2017). Second, research frequently concentrates on broad sentiments regarding

technology, ignoring more specialized sentiments or viewpoints regarding digital marketing tools (Venkatesh & Davis, 2000) Third, the effectiveness of social influence may be limited in certain situations due to cultural and industry-specific differences in its effects (Venkatesh, Morris, Davis, & Davis ,2003). Last but not least, the risk perception model might not

account for all the variables affecting adoption choices, including social and emotional aspects, which can also be quite important (Chen & Shang ,2020)

Social Media Marketing (SMM)

Social media can be defined as "a secure generation of web development and design, that aims to facilitate communication, sources of information sharing, compatibility, and collaboration on the World Wide Web" (Chatterjee & Kar, 2020). Consumers frequently use social media sites for over 330 minutes every day (Abdat, F. A. 2020). These platforms have already evolved into straightforward instruments for creating online connections between consumers and enterprises or between consumers worldwide at any time, especially for Indian SMEs (Dwivedi et al., 2015). This is a result of their lack of funding, technological expertise, and other resources. Social media makes it simple for a business to build its reputation and improve operations. It will help improve the commercial operations of SMEs. According to (R. Hurdawaty and M. Tukiran, 2024), SMM therefore pushes Indian SMEs to boost their spending in social media marketing.

Hypothesis Development

As per the literature reviews, it is seen that MSMEs use SMM of effective operations in the business. Additionally, there are factors that could encourage MSMEs to use SMM. As per the literature review the factors that are considered importance in various research are perceived usefulness, perceived ease to use, facility condition, social influence and individual factors. In order to create hypothesis following factors are studied separately. According to TAM, a person's attitude toward technology use is directly impacted by PEOU and PU, which in turn affects their intention and choice to utilize it. MSMEs in developing countries frequently lack in technical expertise and encounter difficulties with marketing and inventory management (Salam et al., 2021). According to the Technology Acceptance Model (TAM), MSME adoption of ICT is reliant on perceived usefulness (PU) and perceived ease of use (PEoU). According to research, these

elements influence adoption, which can aid businesses in becoming more competitive and productive (Nazir & Khan, 2022; Thathsarani & Jianguo, 2022).

Perceived usefulness (PU): The concept is perceived utility or usefulness explains that the productivity or performance may be improved by utilizing a technology, in this case, technology adoption like ICT, internet use, fintech and social media shows a willingness to accept SMM if they think it will greatly increase their production (Park, 2009).

Perceived ease to Use (PETU): The term "perceived ease of use" (PEU) describes how easy a technology is thought to be to used and adopted without requiring a lot of work. According to research, PEU has a favorable impact on users' desire to embrace a new technology because it is associated with a higher probability of actual usage (Wu, Li, & Fu, 2011; Kim & Chiu, 2019). Even when using social media on smartphone platforms, this association remains valid, since PEU and technology adoption are favorably correlated (Park, Kim, & Kwon, 2016; Kim & Chiu, 2019).

Social Influence (SU) is the idea that if everyone around you is using digital technology, you must use it (Kim and Lee, 2022). As a result, we think that when MSME owners and managers hear powerfully favourable messages from their friends, peers, and rivals that they are more likely to have a strong behavioural desire to use ICT it influences their behaviour also to use it (Venkatesh, Morris, Davis, & Davis, 2003). As Per UTAUT theory social influence indicates how important other people think the new system and technology adoption is in terms of its advantages.

Facility Condition (FC): The extent to which one can verify that the technological and organizational infrastructure is in place to support system usage is explained by UTAUT theory. is referred to as the "facilitating conditions.". In this scenario, it is expected that MSME managers and owners will possess the skills and resources needed to use ICT. FCs have been viewed as an effective predictor of

technological adoption since they have a direct and substantial impact on the actual technological use (Ahamed & Raju, 2023). Individual factors as an extension of TOE are considered as factor of adoption. All these factors will be interesting to study in Indian context. Therefore, following hypothesis were created (Alhakimi & Mahmoud, 2020)

H1: Perceived Usefulness (PU) has a positive impact on the adoption of SMM among MSMEs

H2: Perceived Ease of Use (PETU) has a positive impact on the adoption of SMM among MSMEs

H3: Facility condition (FU) has a positive impact on the adoption of SMM among MSMEs

H4: Social Influence (SU) has a positive impact on the adoption of SMM among MSMEs

H5: Individual factor (IND) has a positive impact on adoption of SMM among MSMEs

Research Methodology

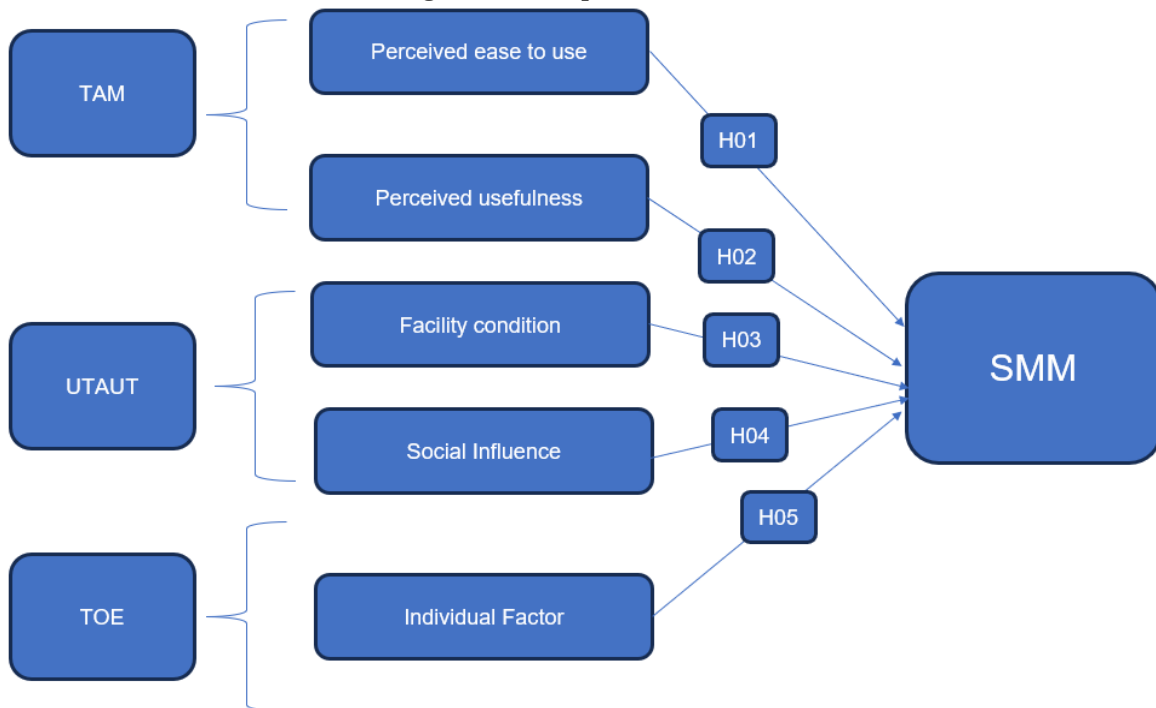
The external variables used in the research are extracted from TAM, UTAUT and TOE theory that includes perceived ease to use (PETU), Perceived usefulness (PU), Facility Condition (FC), social Influence (SI) and Individual Factor (IND). The latest exogenous factors as displayed in TABLE 4. There were several items used to evaluate these structures. The study uses a Likert-type scale with five points: 1 for "strongly disagree" and 5 for "strongly agree." The social media marketing adoption components came from established TAM, UTAUT and TOE scales and research assessments. To ensure study dependability, a minimum of three and a maximum of ten were used.

Table 4: Constructs and Items used in study and its sources

Construct	Items	Reference
Perceive ease to Use	PETU1: learning social media marketing is simple. PETU 2: Using social media to retrieve client information is simple. PETU 3: It's simple to advertise goods and services on social media. PETU 4: Social media makes it simple to find new clients. PETU 5: Using social media to determine consumer demand is simple.	(Kumar et al., 2024), (Puriwat & Tripopsakul, 2021), (Chatterjee & Kar, 2020)
Perceived usefulness	PU1: My Business can benefit from social media. PU2: Social media is a helpful tool for marketing. PU3: Engaging in online social media will increase your business's profitability.	(Kumar et al., 2024), (Chatterjee & Kar, 2020)
Facility Condition	FC1: Our company makes sufficient investments in social media marketing. FC: When it comes to social media marketing, we have enough skilled personnel. FC3: We have an employee who can train others about various facts of SM	(Puriwat & Tripopsakul, 2021), (Kumar et al., 2024), (Chatterjee & Kar, 2020)
Social Influence	SI1: My choice to use social media marketing is influenced by government initiatives. SI2: My behavior is influenced by people who believe that I should use social media for business. SI3: People in my immediate vicinity believe that using social media for business purposes is acceptable.	(Puriwat & Tripopsakul, 2021), (Kumar et al., 2024),
Individual factor	IND1: We want to enter the market before our rivals reword this. IND2: We consistently prioritize and enhance technological leadership, R&D, and innovation. IND3: Using social media adds interest to work.	H.O Awa et al (2017) S. Ali Qualti et al (2020)

	IND4: I am able to utilize social media platforms. IND5: Some social platforms have an impact on me. IND6: I have trust in social media marketing for my product IND7: I understand to use social media platform IND8: I have knowledge to use IND9: I have past experience in using these paltforms IND10: I have ability to use social media platforms	Venkatesh & Davis (2013) Venkatesh, Morris, Davis, & Davis (2003)
Social Media marketing Adoption	SMM1: I have a lot of trust in the advantages of using social media for marketing. SMM2 I will use social media platform for my business, SMM3 I intend to use social media marketing in Future SMM4 Using social media marketing have made my work easy	(Chatterjee & Kar, 2020). (A.Patel et al., 2020)

Figure 1: Conceptual framework



Instrument validity

In order to ensure the questionnaire's psychometric properties, academic personnel and the study's target population assessed its ease of use and clarity during creation. The majority of respondents stated that the questionnaire was simple to complete. Therefore, no further adjustments were required.

Sampling and Data collection

The study's sample was randomly selected from MSMEs in Delhi. The database of retailers was collected from websites such as India Mart, Trade India, and Suleka and few MSMEs contacted through Instagram. This facilitates the collection of a decent number of retailers from Delhi. Since it is believed that business owner and managers are most informed about

their company's ecosystem and accomplishments so they were considered as respondents of the study the main respondents (A. Kumar and Singh, 2022). An email with a link to the Google Form was sent to 140 prospective respondents. They were invited to take part in the online survey. Online surveys are a

Results

Table 5: Descriptive Information

Characteristic	Category	Frequency	Percentage
Gender	Female	84	60.00%
	Male	56	40.00%
Age Group	Less than 20	21	15.00%
	Between 20-30	21	15.00%
	Between 31-40	49	35.00%
	Between 41-50	14	10.00%
	More than 50	35	25.00%

Table 5 contains the full and descriptive data from 140 respondents. The selected MSMEs have their business in retail clothing, export clothing business and sell their products through social media platforms. The majority of respondents were managers and owners, with 56% of them being male and 84% being females. This data represents demographic of owner in Delhi. These 49 percent of respondents are between the ages

productive and economical way to gather data. Follow-up calls were made in an effort to increase participation. However, MSMEs' reluctance to commit the necessary time to filling out the questionnaire was the reason for the poor response rate.

of 31 and 40, which is considered to be an early adopter of social networking platforms.

Table 6: represents In terms of popularity of the the platforms used for marketing, WhatsApp is the most popular, followed by Instagram, Facebook, and YouTube among MSMEs . The standard deviations reveal the degree of consistency in the responses, while the means represent the rank, with a lower mean indicating higher usage that is WhatsApp.

Table 6: Table showing Mean score and interpretation

Question	Item	Mean	SD	Interpretation
The most preferred social media platform to market the product by MSMEs	WhatsApp	1.45	.87	Always
	Instagram	2.56	1.02	Sometime
	Facebook	3.12	1.10	Rarely
	YouTube	4.03	1.15	Rarely

Data Purification and Structural Model

Almost all of the measures were derived from or adapted from pre-existing scales; however, several of the assessment items required improvement and testing for various reliability aspects prior to data analysis (Gerbing and Anderson 1988). Using

principal component analysis, the EFA was conducted. The result of this new analysis is confirmed. Significance of that shows the result of significance at a sample of (n=140) = 2121.038 ($P < 0.000$). In the context of TAM, UTAUT, and TOE, the The Kaiser-Meyer-Olkin (KMO) measure of sample adequacy and the Bartlett's Test of Sphericity (BTS)

values for various constructs are shown in table 7. The KMO values, which range from 0.54 to 0.839; values larger than 0.5 are considered acceptable, show that the sample size is adequate for factor analysis. All of the BTS values are significant ($p < 0.005$), indicating that the variable correlations are strong enough to support component analysis. With the highest KMO

value (0.839), the construct "IND" indicates strong sampling adequacy, whereas the construct "FC" has the lowest KMO value (0.54), which is nevertheless considered adequate. The validity of component analysis for these constructs is further supported by the fact that all BTS p-values are less than 0.005.

Table 7 : KMO and BTS values in the TAM, UTAUT and TOE contexts

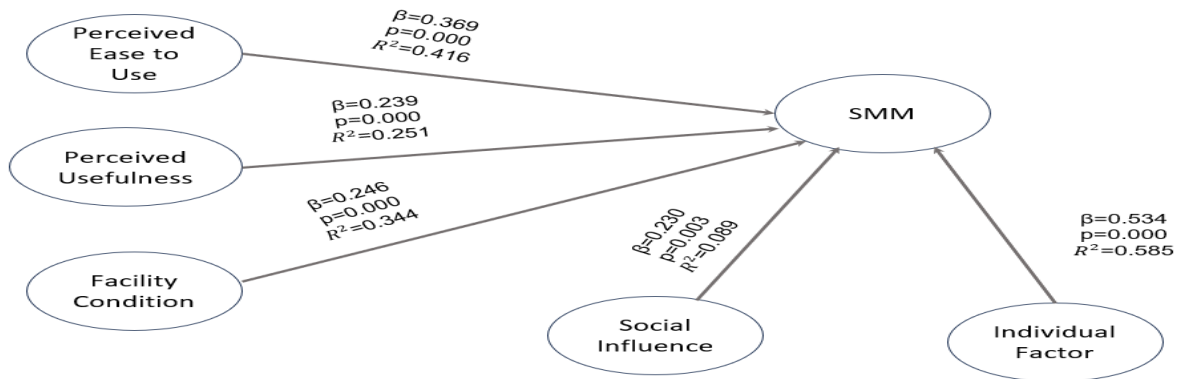
Measure		
Construct	Kaiser-Meyer-Olkin (KMO) measure of Sampling Adequacy	Bartlett's Test of Sphericity (BTS)
PETU	0.717	404.011($p=0.000, < 0.005$)
PU	0.721	241.840 ($p=0.000, < 0.005$)
FC	0.54	113.513($p=0.000, < 0.005$)
SI	0.582	83.385($p=0.000, < 0.005$)
IND	0.839	861.572($p=0.000, < 0.005$)
KMO and BTS values in the TAM, UTAUT and TOE context		

The next step in the data analysis process is scale reliability. Cronbach's Alpha is used to measure internal coherence. Cronbach's Alpha is known as a reference to reliability. The questionnaire of 56construct and 34 items were sent to 140 respondents. There were 5 section in the questionnaire. The loading of each item was reported between ($\alpha = 0.650$ to $\alpha = .8710$). The Perceived Ease to Use (PETU) construct is a valid and trustworthy measure in the TAM framework since its items exhibit high reliability, strong loadings, and little variability. The items' factor loadings range from ($\alpha = 0.73$ to $\alpha = 0.843$), suggesting that there are strong correlations between the items and the constructs. Perceived Usefulness (PU) items, and the construct has good internal consistency ($CR = 0.795$). The items and the construct have strong connections, as indicated by the factor loadings, which vary from ($\alpha = 0.734$ to $\alpha = 0.783$). With factor loadings ranging from ($\alpha = 0.763$

to $\alpha = 0.81$), the Facility Condition (FC) construct exhibits high item-to-construct correlations and acceptable internal consistency ($CR = 0.794$). Despite differences in mean scores and standard deviations, every item is statistically significant. With mean scores ranging from 3.99 to 4.24, the Social Influence (SI) construct exhibits high internal consistency ($CR = 0.76$). Strong item-to-construct correlations are shown by factor loadings ranging from ($\alpha = 0.65$ to $\alpha = 0.755$), all of which are statistically significant ($p < 0.005$).Excellent internal consistency is shown by the TOE framework's Individual Factor (IND) component ($CR = 0.866$). Strong agreement with the individual factor is indicated by the IND items' mean scores, which vary from 4.14 to 4.79. The factor loadings indicate strong item-to-construct correlations; they range from ($\alpha = 0.836$ to $\alpha = 0.87$), all above the 0.7 cut off. Since every p-value is less than 0.005, statistical significance is confirmed.

Table 8: Loading, composite reliability and p-value.

Construct	Items	M	S.D	Loading	CR	p-Values	VIF
TAM					0.813		1.000
Perceive ease to Use	PETU1	4.56	0.527	0.73		.001	
	PETU2	4.53	0.581	0.762		.003	
	PETU3	3.89	0.823	0.843		.001	
	PETU4	4.59	0.575	0.787		.000	
	PETU5	4.61	0.570	0.792		.000	
TAM					0.795		1.000
Perceived usefulness	PU1	3.81	1.227	0.783		0.001	
	PU2	3.57	1.120	0.773		0.002	
	PU3	3.70	1.307	0.734		0.000	
UTAUT					0.794		1.000
Facility Condition	FC1	2.83	1.138	0.763		0.004	
	FC2	2.61	1.317	0.81		0.003	
	FC3	3.96	1.181	0.77		0.002	
UTAUT					0.76		1.000
Social Influence	SI1	3.99	1.169	0.65		0.004	
	SI2	4.24	0.981	0.755		0.005	
	SI3	3.99	1.169	0.709		0.001	
TOE					0.866		1.000
Individual factor	IND 1	4.69	0.669	0.858		0.000	
	IND 2	4.14	0.934	0.865		0.002	
	IND 3	4.33	0.826	0.847		0.001	
	IND 4	4.79	0.632	0.84		0.001	
	IND 5	4.34	0.846	0.849		0.000	
	IND 6	4.29	1.048	0.87		0.000	
	IND 7	4.50	0.694	0.843		0.000	
	IND 8	4.53	0.673	0.836		0.000	
	IND 9	4.37	1.006	0.866		0.003	
	IND 10	4.51	0.648	0.853		0.000	
Social Media Marketing Adoption					0.838		

Figure 2: Multiple regression analysis and Hypothesis testing**Table 9: Hypothesis testing**

Hypothesis and Construct	Hypothesis	(R ²)	Adj (R ²)	t-Statistics	p-Values	Result
PETU → Social media Adoption	H1: PETU have a positive influence on social media adoption by MSMEs	.416	.371	7.416	.000	Accepted
PU → Social media Adoption	H2: PU have a positive influence on social media adoption by MSMEs	0.251	0.241	4.88	0.000	Accepted
FC → Social media Adoption	H3: FC have a positive influence on social media adoption by MSMEs	0.344	0.335	6.106	0.000	Accepted
SI → Social media Adoption	H4: SI have a positive influence on social media adoption by MSMEs	.089	.062	2.981	.003	Accepted
INDV → Social media Adoption	H5: INDV have a positive influence on social media adoption by MSMEs	0.585	0.58	10.03	0.000	Accepted

According to PETU $R^2 = 0.416$, the regression model can explain 41.6% of the variance in the dependant variable. The p-value (0.000) and the t-statistic (7.416) show that the predictor and the dependent variable are significantly correlated. The null hypothesis is disproved, and the result is recognized as significant. The regression model explains 25.1% of the variation in PU ($R^2 = 0.251$). PU indicates that the dependent variable, social media marketing, varies by 23%.

With an adjusted R^2 of 0.335 and a beta of 0.344, which accounts for 34.4% of the variance ($R^2 =$

0.344), Facility Condition (FC) also shows a moderately beneficial impact. Additionally, the association is very significant, as shown by the p-value of 0.000 and the t-statistic of 6.106. With a beta of 0.089 and an adjusted R^2 of 0.062, Social Influence (SI) exhibits a smaller effect, accounting for 8.9% of the variance ($R^2 = 0.089$). Nevertheless, this association remains statistically significant ($p = 0.003$, $t = 2.981$). With an adjusted R^2 of 0.580 and a beta of 0.585, the Individual Factor (IND) has the largest influence, accounting for 58.5% of the variance ($R^2 = 0.585$). With a p-value of 0.000 and a high t-statistic

of 10.03, this is the most significant relationship. Overall, statistically significant correlations are found between all dimensions, with IND having the most effect on the dependent variable. To determine whether there are statistically significant differences between the means of various groups, the ANOVA table is utilized. With a p-value of 0.000 and an F-value of 7.761, PETU X SMM shows a significant difference between the groups. Likewise, there is a significant difference for Perceived Usefulness X

SMM, as indicated by the F-value of 4.603 and p-value of 0.000. An F-value of 4.603 and a p-value of 0.000 indicate a significant outcome for the Facility Condition X SMM as well. With a p-value of 0.013 and an F-value of 3.293 for Social Influence X SMM, there is a statistically significant difference at the 0.05 level. Finally, the p-value for Individual Factor X SMM is 0.000 and the F-value is 9.198, indicating the variation is not by chance

Table 10 : Result of One way Anova analysis

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
PETU X SMM	Between Groups	169.458	7	24.208	7.761	.000 ^b
	Within groups	411.713	132	3.119		
	Total	581.171	139			
PU X SMM	Between Groups	114.025	7	16.289	4.603	.000 ^b
	Within groups	467.147	132	3.539		
	Total	581.171	139			
FC X SMM	Between Groups	53.650	4	16.289	4.603	.000 ^b
	Within groups	530.521	135	3.539		
	Total	584.171	139			
SI X SMM	Between Groups	51.670	4	12.917	3.293	.013 ^b
	Within groups	529.502	135	3.922		
	Total	581.171	139			
IF X SMM	Between Groups	241.905	10	24.191	9.198	.000 ^b
	Within groups	339.266	129	2.630		
	Total	581.171	139			

Note: Only significantly statistical results of the one-way ANOVA are shown in the table. Perceived ease to Use (PETU), Perceived usefulness (PU), Facility condition(FC), Social Influence (SI), Individual factor(IND) and SMM (Social media Marketing)

Discussion

MSMEs have begun using social media, which has become an essential component of business. The primary determinants of social media marketing (SMM) adoption among Delhi's MSMEs (Micro, Small, and Medium Enterprises) are examined in this study. This paper integrated 3 theories of adoption that includes TAM, UTAUT and TOE theory to extract the factors of SMM adoption. Perceived Utility (PU), Perceived Ease of Use (PETU), Facility Condition (FC), Social Influence (SI), and Individual elements (IND) are among the factors that appear to have a substantial impact on SMM decisions, according to the research. This is aligned with the study conducted by Dadhich et al. (2023) (Mensah Khan et al., 2024)

As per this study Social media marketing decisions of MSMEs are most significantly influenced by Individual Factors (IND), which account for 58.5% of the variance. This highlights the importance of persona attributes like Entrepreneurship orientation, ability, attitude, influence, past experience, understanding, knowledge, and innovation capability that plays an important role in determining how MSMEs embrace and use social media for marketing. This is also stated by Venkatesh & Davis (2013) Venkatesh, Morris, Davis, & Davis (2003). Perceived ease to use signifies that usage of social media marketing is simple to use, ease in retrieving client information and ease in advertising product to the customers as explained by (G.S, Leng et al., 2011). Another moderately significant factor that explained 34.4% of the variance was Facility Condition (FC). This factor emphasizes how crucial organizational resources and infrastructure are to successfully implementing SSM.

Perceived Usefulness and social influence has moderate impact on MSMEs in adoption of social media marketing. Customer pressure and Family friend support has more impact on decision in comparison to Government regulation and competitive pressure. Supports by (H.G. Song, 2023) in their research. According to the respondents' perceptions,

Facebook, Instagram, and WhatsApp are the most helpful apps for conducting business, ranking first, second, and third, respectively. According to this study, middle-aged retailers are more likely to maintain their greater behavioral intention to use social media marketing for their businesses. This study contributes to the body of knowledge already accessible on the TAM, UTAUT, and TOE models because there aren't many studies on the usage of social media marketing for business, especially in emerging city like Delhi.

Theoretical contribution

By testing these frameworks in the unique context of MSMEs in India, the study advances our understanding of the Unified Theory of Acceptance and Use of Technology (UTAUT), the Technology Acceptance Model (TAM), and the Technology Organization and Environment (TOE). Additionally, this study sheds light on the variables affecting MSMEs' adoption of social media marketing in India, which may be helpful for other studies in this field. Additionally, this study emphasizes how crucial is individual factor from TOE and perceived ease to use from TAM and facility condition from UTAUT are in determining how MSMEs behave when it comes to using social media marketing.

Practical contribution

Businesses can benefit greatly from social media, particularly in light of the COVID-19 pandemic. Social influence is seen to be less impact full. That highlights that government initiatives are not recognised by the MNSEs. Given that PEU and PEOU have a substantial and positive influence on SMM use Therefore policymakers could encourage social media training for SMEs through vocational centers. This will encourage entrepreneurship and promote long-term economic and social growth by giving the next generation the necessary business and technical skills. Infrastructure and facility conditions are importance to utilize SMM for MSMEs. This entails ensuring that top management must promote SMM adoption inside

the company and giving staff the appropriate training to promote its use.

Limitation

The sample is limited to Delhi that do not represent other metropolitian cities. The could have yield different result. The survey conducted with 140 respondents that does not represent India's diverse MSME landscape . More factors or a longer study period could improve the model's explanatory power. Additionally, future studies should evaluate different technical acceptant models at the individual and organizational levels, such as Diffusion of Innovation (DOI) models, in order to advance our understanding of social media marketing adoption for commercial aims.

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Conclusion

Social media platforms are widely used by people from all socioeconomic backgrounds. They enable users to exchange feedback with stakeholders and build networks that can impact global activities. With advantages like network externalities, social media marketing (SMM) gives SMEs an affordable way to advertise their goods and connect with potential clients. In contrast to big businesses, SMEs can use social media marketing (SMM) to save money on advertising and get insightful consumer feedback to enhance their goods and services. The results of this study enable SMEs effectively use SMM for improved business outcomes by providing practitioners and policymakers with insightful information.

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