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The antecedents and consequences of the customer's attitude toward social media adoption: a meta-analytic approach

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Abstract: This study aims to draw conclusions about the relationships between antecedents and consequences of customer attitude toward social media. A quantitative meta-analysis is conducted to validate eight research hypotheses from journal and conferences paper published between 2004 and 2020. The results show that the factors posited by the technology acceptance model (TAM), the knowledge sharing model (KSM), and motivation, opportunity, and ability (MOA) have a significant influence on attitudes and behavioural intentions toward social media adoption. In addition, social influence and customer values have a significant impact on attitudes and behavioural intentions toward social media adoption. Our research findings contribute significant references for researchers in order to validate the influence of TAM, KSM, and MOA. The study results also provide critical references for practitioners to build and develop their social media marketing strategies.

Keywords: technology acceptance model; knowledge sharing model; motivation, opportunity, and ability model; meta-analysis; social influence; customer values; social media adoption.

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1 Introduction

Taking into account the buzz surrounding the use of social networks at the individual level as well as the firm's media mix, social media uses have expanded dramatically in recent years (Karikari et al., 2017; Koo et al., 2014; Peters et al., 2013). According to recent estimates on social media usage (e.g., Facebook, Twitter, Instagram, Wechat, and others), over a billion people have used these platforms in the last decade (Majeed et al., 2021; Karikari et al., 2017; Kent, 2015). Additionally, Al-Azawei (2018) indicated that the creation of social networks has transformed the way all relevant stakeholders, including organisations, societies, and individuals to communicate with one another. The continuous development of social media has resulted in a significant shift in how customers buy, sell, interact, and communicate every day and sparked a lot of interest in both research and practice (Karikari et al., 2017).

Social media has spawned previously unimaginable social connections where the individual is able to join communities, post updates, communicate, and share information with their friends at any time (Curras-Perez et al., 2014). As a result, the impact of social media cannot be underestimated, and it is expected to revolutionise not only personal but also corporate connections around the world. Many researchers have utilised the theory of reasoned action (TRA), theory of planned behaviour (TPB), or technology acceptance model (TAM) approaches (e.g., Ajjan and Hartshorne, 2008; Chang et al., 2017; Rauniar et al., 2014) to provide light on customer use of social media or intend to use it (Karikari et al., 2017). While knowledge sharing has evolved into a cornerstone of social media adoption. Customers frequently engage in reciprocal interactions on social media to acquire knowledge (Bharati et al., 2015; Chauhan et al., 2021). However, the existing literature does not identify effective strategies for using social media to improve knowledge sharing and management (Kaščelan et al., 2020).

Additionally, the mobility, opportunity, and ability (MOA) theory posits that an individual's behaviour is determined by three factors: motivation, opportunity, and ability (Ahmad et al., 2021). Although this theory has been applied in many contexts, very few studies have linked it to social media adoption. For instance, Teh and Ahmed (2011) used the MOA theory to explain why customers use social media. In addition, Hadining (2020) argued that motivation, opportunity, and ability all play a significant role in adopting Facebook advertisements. Therefore, this study argues that the integration of the TAM, knowledge-sharing model (KSM), and MOA factors for social media adoption into a comprehensive model is expected to provide a significant contribution to the existing literature on the social media field.

Although there is a considerable amount of the prior studies between research variables, it is difficult to determine strong links to the prior hypotheses due to the multidimensional character of the structures and the discrepancies between the studies (Wu et al., 2018). Therefore, based on the meta-analysis approach, this study will validate the previous studies with the level of individual investigations and provide an appropriate conclusion for the relationship between research variables regarding attitude and behaviour intention toward social media adoption. Meta-analysis is utilised as a statistical method for synthesising the literature that “reviews and combines statistical results from previous research in an attempt to summarise the totality of evidence relating to a particular issue” (Spector and Thompson, 1991, p.89). King and He (2006) indicated that meta-analysis allows diverse results to be integrated by considering the relative sample and effect sizes, allowing for the analysis of both insignificant and remarkable effects. Additionally, by combining the findings of multiple independent studies that examine the same relationship into a single estimate and accounting for the distorting effects of artefacts that may create the illusion of conflicting results, meta-analysis arrives at more accurate conclusions than any single primary study (Blend, 2021; Hunter and Schmidt, 2004; Rosenthal, 1991). As a result, it is a useful technique for resolving discrepancies between previous studies and synthesising data from accumulated research in the social media field (Blend, 2021; Petter and McLean, 2009).

2 Literature review

2.1 *The influence of technology acceptance factors on attitude toward social media*

Over the last decade, the TAM model has been widely regarded as one of the most popular models for customer acceptance and technology utilisation (Zhong et al., 2021; Zhang et al., 2021b; Vahdat et al., 2021). Furthermore, customers' perceptions of the TAM model may be shaped by their use of social media (Rauniar et al., 2014). These authors indicated that the TAM factors that could be used to explain computer usage behaviour included perceived usefulness and perceived ease of use. They also concluded that perceived usefulness and perceived ease of use influence customers' perceptions of technology. Furthermore, Appel et al. (2020) argued that customers want to engage in social media activities because they enjoy interacting with others.

Previous research undervalued the importance of enjoyment, fun, and curiosity in motivating customers to use social media (Nguyen et al., 2021). Additionally, Rauniar et al. (2014) demonstrated that when technology is used to facilitate the use of social

media, significant value can be created for customers. Although TAM was initially focused on information systems, it has been successfully applied to studies discussing online shopping behaviour (Chiu et al., 2009; Dutot, 2014). Table 1 demonstrated all studies which were used to code hypothesis 1 regarding the relationship between TAM and attitudes toward social media.

Table 1 The illustrative coding of hypothesis 1

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Hsu and Lin (2008)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	212	Questionnaire survey	Taiwan
Zhang et al. (2012)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	402	Questionnaire survey	China
Lee et al. (2006)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	206	Questionnaire survey	USA
Cha (2009)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	167	Questionnaire survey	USA
Weng et al. (2018)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	2317	Questionnaire survey	Taiwan
Kasilingam and Soundararaj (2020)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	350	Questionnaires	India
Chen et al. (2017)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	491	Questionnaire survey	China
Cho and Son (2019)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	446	Questionnaire survey	USA
Hsu and Lin (2008)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	212	Questionnaire survey	Taiwan
Vladova et al. (2021)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	875	Questionnaire survey	Germany
Coa and Setiawan (2017)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	100	Questionnaire survey	Indonesia

Table 1 The illustrative coding of hypothesis 1 (continued)

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Huang and Liaw (2018)	Perceived usefulness Perceived ease of use	Attitude toward social media	308	Questionnaire survey	Taiwan
Perumal et al. (2022)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	170	Questionnaire survey	Malaysia
Liao et al. (2022)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	417	Questionnaire survey	Vietnam
Kim et al. (2018)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	262	Questionnaire survey	Korea
Ayeh et al. (2013)	Perceived usefulness Perceived ease of use Perceived enjoyment	Attitude toward social media	535	Questionnaire survey	USA
Alfadda and Mahdi (2021)	Perceived usefulness Perceived ease of use	Attitude toward social media	75	Questionnaire survey	Saudi Arabi
Siyal et al. (2019)	Perceived usefulness Perceived ease of use	Attitude toward social media	200	Questionnaire survey	China
García-Fernández et al. (2020)	Perceived usefulness Perceived ease of use	Attitude toward social media	591	Questionnaire survey	Spain
Lin et al. (2020)	Perceived usefulness Perceived ease of use	Attitude toward social media	376	Questionnaire survey	Taiwan
Zhao and Wang (2020)	Perceived usefulness Perceived ease of use	Attitude toward social media	256	Questionnaire survey	China
Dutot (2015)	Perceived usefulness Perceived ease of use	Attitude toward social media	320	Questionnaire survey	French
Elkaseh et al. (2016)	Perceived usefulness Perceived ease of use	Attitude toward social media	182	Questionnaire survey	Libya
Lee et al. (2003)	Perceived usefulness Perceived ease of use	Attitude toward social media	31	Questionnaire survey	USA
Guritno and Siringoringo (2013)	Perceived usefulness Perceived ease of use	Attitude toward social media	283	Questionnaire survey	Indonesia

Based on the above argument and the data from Table 1, the following hypothesis is developed in light of the above discussion:

H1a: Perceived usefulness will positively affect customers' attitudes toward social media.

H1b: Perceived ease of use will positively affect customers' attitudes toward social media.

H1c: Perceived enjoyment will positively affect customers' attitudes toward social media.

2.2 The influence of knowledge sharing factors on attitude toward social media

According to Ahmed et al. (2018), social media can now be considered one of the most important modes of knowledge sharing due to the ease with which individuals can connect with one another. Lin et al. (2005) demonstrated that knowledge sharing should be viewed as a transaction process within knowledge markets, with knowledge senders and receivers benefiting reciprocally from knowledge exchange. Knowledge exchange can be explained by three major constructs: perceived altruism, expected reciprocal benefits, and expected relationships. Perceived altruism is defined as an individual's willingness to improve the welfare of another customer without expecting anything in return (Hsu and Lin, 2008). Bolino et al. (2002) argued that individuals who exhibit a higher level of organisational citizenship develop a closer relationship with their coworkers, resulting in increased altruistic behaviour. Hars and Ou (2002) contended that altruism drove students and hobbyists to participate in open-source projects. An expected reciprocal benefit is defined as the degree to which an individual believes that mutual benefits can be obtained through knowledge sharing (Hsu and Lin, 2008). Therefore, customers increasingly rely on social media platforms to acquire knowledge and exchange ideas. An expected relationship is defined as the extent to which customers ensure that they can obtain a more mutually beneficial relationship through sharing of their knowledge and experiences (Hsu and Lin, 2008).

Additionally, social media is used as a virtual community for developing relationships with friends and other relevant parties (Zhang et al., 2021a). As a part of a larger community that can share valuable knowledge, customers always expect to receive feedback and share experiences in exchange for reciprocal benefits and friendships (Zhang et al., 2021a). The feedback may reinforce the provider's knowledge and encourage them to share it passionately.

Table 2 demonstrated all studies which were used to code hypothesis 2 regarding the relationship between knowledge sharing factors and attitudes toward social media.

Table 2 The illustrative coding of hypothesis 2

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Hsu (2008)	Altruism Expected relationship Expected reciprocal benefit	Attitude toward social media	212	Questionnaire survey	Taiwan
Kumar et al. (2015)	Altruism Expected relationship Expected reciprocal benefit	Attitude toward social media	395	Questionnaire survey	India

Table 2 The illustrative coding of hypothesis 2 (continued)

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Papadopoulos et al. (2013)	Altruism Expected Relationship Expected reciprocal benefit	Attitude toward social media	175	Questionnaire survey	Thailand
Chen and Hew (2018)	Altruism Expected relationship Expected reciprocal benefit	Attitude toward social media	300	Questionnaire survey	Singapore
Waris et al. (2021)	Altruism	Attitude toward social media	373	Questionnaire survey	Pakistan
Brouwer and Jansen (2019)	Altruism	Attitude toward social media	183	Questionnaire survey	Netherland
Lin et al. (2016)	Altruism	Attitude toward social media	164	Questionnaire survey	Taiwan
Allameh et al. (2012)	Expected reciprocal benefit	Attitude toward social media	160	Questionnaire survey	Iran
Olatokun and Nwafor (2012)	Expected reciprocal benefit	Attitude toward social media	297	Questionnaire survey	Nigeria
Lin et al. (2013)	Altruism	Attitude toward social media	800	Questionnaire survey	Taiwan
Shih and Lou (2011)	Expected relationship	Attitude toward social media	210	Questionnaire survey	Taiwan
Olatokun and Nneamaka (2013)	Expected relationship	Attitude toward social media	273	Questionnaire survey	Nigeria

Based on the above argument and the data from Table 2, the following hypothesis is developed based on the preceding discussion:

H2a: Altruism will positively affect customers' attitudes toward social media.

H2b: Expected reciprocal benefits will positively affect customers' attitudes toward social media.

H2c: Expected relationships will positively affect customers' attitudes toward social media.

2.3 *The influence of motivation, opportunity, and ability factors on attitude toward social media*

In the customer behaviour literature, MacInnis and Jaworski (1989) developed the motivation, opportunity, and ability (MOA) model to describe how customers process information in advertisements. Additionally, MacInnis and Jaworski (1989) demonstrated that MOA predicts customer attitude and behaviour. Although many scholars have

applied the MOA approach to a variety of topics, such as community participation (Hung et al., 2011), marketing performance (Clark et al., 2005), art participation (Wiggins, 2004), crime (Kenry, 2003; McGrew, 2005), and virtual co-creation (Bettiga et al., 2017), research on social media is still limited.

According to Cui et al. (2020), motivation is goal-directed arousal, which is defined as the willingness or interest of parties to engage in particular actions. Motivation is considered an important decision-making factor because it affects the direction and intensity of customer behaviour (Cui et al., 2020). Hung and Petrick (2012) have indicated that motivation is a 'push' factor that can influence customer attitudes. The motivational factor can be critical in enhancing the attractiveness or image of a travel destination (Cui et al., 2020).

An opportunity is defined as a circumstance that enables or facilitates customers' behaviour (Cui et al., 2020). According to MacInnis et al. (1991), identifying opportunities in customer literature can be difficult due to distractions, a lack of time, or information overload. In a study about marketing performance, Clark et al. (2005) indicated that data shortfall should be included on that list: without information, no opportunity exists. For the customer, tangible or intangible opportunities of using social media will also significantly impact their thinking and attitude (Dwivedi et al., 2021).

The term 'ability' refers to the degree to which customers possess the skills or expertise necessary to interpret brand information contained in an advertisement (Cui et al., 2020; MacInnis et al., 1991). In the customer behaviour field, there is a strong correlation between ability and expertise in a straightforward manner that the customer can identify (Alba and Hutchinson, 1987). Without ability, the actual transaction will be impractical. Furthermore, they confirmed previous research findings that MOA is a good predictor of attitude (Cui et al., 2020; Hung and Petrick, 2012; Leung and Bai, 2013).

Based on the above argument and the data from Table 3, the following hypothesis is developed:

H3a: Motivation will positively affect customers' attitudes toward social media.

H3b: Opportunity will positively affect customers' attitudes toward social media.

H3c: Ability will positively affect customers' attitudes toward social media.

Table 3 The illustrative coding of hypothesis 3

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Hsu et al. (2010)	Motivation	Attitude toward social media	1514	Questionnaire survey	China
Mahendra et al. (2017)	Motivation	Attitude toward social media	230	Questionnaire survey	Indonesia
Irshad and Ahmad (2019)	Motivation	Attitude toward social media	574	Questionnaire survey	Pakistan
Lien and Cao (2014)	Motivation	Attitude toward social media	264	Questionnaire survey	China
Pop et al. (2020)	Motivation	Attitude toward social media	180	Questionnaire survey	Hungary

Table 3 The illustrative coding of hypothesis 3 (continued)

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Eid et al. (2020)	Motivation	Attitude toward social media	256	Questionnaire survey	Jordan
Wolny and Mueller (2013)	Motivation	Attitude toward social media	192	Questionnaire survey	UK
Dahalan et al. (2015)	Opportunity	Attitude toward social media	500	Questionnaire survey	Malaysia
Mooy and Robben (2002)	Opportunity	Attitude toward social media	127	Questionnaire survey	Netherlands
Eid et al. (2020)	Opportunity	Attitude toward social media	256	Questionnaire survey	Jordan
Hui-Chen et al. (2014)	Opportunity	Attitude toward social media	258	Questionnaire survey	Taiwan
Mooy and Robben (2002)	Ability	Attitude toward social media	127	Questionnaire survey	Netherlands
Wang et al. (2021)	Ability	Attitude toward social media	200	Questionnaire survey	China
Fitzsimmons and Douglas (2005)	Ability	Attitude toward social media	414	Questionnaire survey	Thailand
Hui-Chen et al. (2014)	Ability	Attitude toward social media	258	Questionnaire survey	Taiwan
Hunter et al. (2002)	Ability	Attitude toward social media	1420	Questionnaire survey	USA
Jellison and Davis (1973)	Ability	Attitude toward social media	57	Questionnaire survey	USA
Elms (1966)	Ability	Attitude toward social media	80	Questionnaire survey	France
Adrita and Mohiuddin (2020)	Ability	Attitude toward social media	450	Questionnaire survey	Bangladesh
Teh and Ahmed (2011)	Ability	Attitude toward social media	220	Questionnaire survey	Malaysia

2.4 *The influence of social influence on attitude toward social media*

Customers have a strong need to know accurate information, and when they lack trust in their knowledge or experience, they will seek out and receive accurate information from others. Individuals are prone to social influence regardless of whether the information is accurate or inaccurate. Social influence can make an influence on an individual's behaviour intention through hedonic motivation (Akram et al., 2021) and perceived enjoyment (Qiu and Benbasat, 2009). Kim (2021) stated that social influence is more closely related to rational decision-making and cognition-based attitude (Mari'nez-Lo'pez et al., 2005). Social influence may support customers to make decisions when they are unfamiliar with them and refer to the degree to which social media use is valued, reinforced, and expected within a group or among friends (Marino et al., 2020).

Additionally, social influence factors have a significant impact on how customers make purchasing decisions. Customers go shopping for social influence (Cheung et al., 2015) and enjoy social activities (Akram et al., 2021). For instance, customers can share helpful information about products or services with other customers by engaging in activities within a social group or a community. In addition, they can find and make new friends in the virtual community by sharing common interests in the same products or services on social media. Many prior studies based on the theory of reasoned action and the theory of planned behaviour have discovered that subject opinions significantly affect the customers' willingness to shop online (Chih et al., 2012; Habib et al., 2021). In addition, previous studies have established a positive correlation between social influence and attitudes toward online shopping (Chih et al., 2012).

Based on the above argument and the data from Table 4, we hypothesised the following:

Hypothesis 4: Social influence will positively affect attitude toward social media.

Table 4 The illustrative coding of the hypothesis 4

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Pornsakulvanich and Dumrongsiri (2010)	Social influence	Attitude toward social media	268	Questionnaire survey	Thailand
Li (2013)	Social influence	Attitude toward social media	123	Questionnaire survey	Taiwan
Lee et al. (2006)	Social influence	Attitude toward social media	104	Questionnaire survey	China
Dagher and Itani (2012)	Social influence	Attitude toward social media	101	Questionnaire survey	USA
Ningsih et al. (2019)	Social influence	Attitude toward social media	102	Questionnaire survey	Indonesia
Varshneya et al. (2017)	Social influence	Attitude toward social media	160	Questionnaire survey	India
Alfany et al. (2019)	Social influence	Attitude toward social media	125	Questionnaire survey	Indonesia

2.5 The influence of social influence on customers' behavioural intention toward social media adoption

According to Cheung and Lee (2010), social influence plays a significant role in customers' decision to engage in a particular behaviour. Taylor and Tood (1995) also found that social influence has a significant effect on the intentions of pre-and post-adopters. According to the theory of reasoned action, there are theoretical bases for the influences of social influence on customer behaviour. Empirical studies have found that social influence positively affects customers' behavioural intentions. Many studies have confirmed the effects of social influence on the adoption of internet-related services such as online shopping, online gaming, and blogging (Yu and Han, 2021; Hsu and Lin, 2008).

In addition, the use of social media for information discovery and sharing has exploded in recent years as the Internet has become ubiquitous. Social influence has

emerged as an inevitable communication channel used by individual customers to express opinions and share ideas or information with others. The majority of internet users spend considerable time on the Internet defining their relationships with others and viewing users who follow their websites (Ibrahim, 2021). Thus, social networking sites such as Twitter and Facebook, LinkedIn, Instagram, etc., are actively encouraging users to connect around shared interests and form or join virtual communities. Therefore, social influence should significantly impact the usage of social media (Hsu and Lin, 2008).

Based on the above argument and the data from Table 5, the following hypothesis is developed:

Hypothesis H5: Social influence will positively affect customers' behavioural intention toward social media adoption.

Table 5 The illustrative coding of hypothesis 5

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Lee (2008)	Social influence	Behavioural intention	6010	Questionnaire survey	China
Ningsih et al. (2019)	Social influence	Behavioural intention	102	Questionnaire survey	Indonesia
Mohd Noor and Muhammad (2019)	Social influence	Behavioural intention	390	Questionnaire survey	Malaysia
Lu et al. (2019)	Social influence	Behavioural intention	378	Questionnaire survey	China
Fernández-Robin et al. (2019)	Social influence	Behavioural intention	579	Questionnaire survey	India
Kabra et al. (2017)	Social influence	Behavioural intention	192	Questionnaire survey	India
Palau-Saumell et al. (2019)	Social influence	Behavioural intention	1200	Questionnaire survey	Spain
Raman and Kok-Wai (2010)	Social influence	Behavioural intention	154	Questionnaire survey	Indonesia
Islam (2017)	Social influence	Behavioural intention	413	Questionnaire survey	Bangladesh
Alwahaishi and Snásel (2013)	Social influence	Behavioural intention	238	Questionnaire survey	Saudi Arabia
Lai (2017)	Social influence	Behavioural intention	140	Questionnaire survey	Taiwan
Tarhini et al. (2016)	Social influence	Behavioural intention	408	Questionnaire survey	Lebanon
de Sena Abrahão et al. (2016)	Social influence	Behavioural intention	605	Questionnaire survey	Brazil

2.6 The influence of customer values on attitude toward social media and behavioural intention toward social media adoption

Values are “centrally held, enduring core beliefs, desired end-states, or higher-order goals of the individual customer or organisation customer that guide behaviour” (Flint et al., 1997). Previously, customer value was defined as what the customer received and was evaluated in terms of product/service attributes, attribute performance, and consequences associated with using the product/service to achieve the customer’s goals and purposes (Morar, 2013). Customers can perceive value consciously, unconsciously, or pre-consciously. Therefore, customers will receive value based on their needs, demographics or personalities, and financial ability (Wang et al., 2021). For example, a customer may be affected more by intangible sacrifices than visible benefits, while another may seek compensation benefits (Wang et al., 2021).

Customers of tenses seek critical information about products/services from various sources, primarily through product/service reviews on social networking sites, before making purchases, particularly those with a high price tag (Akar and Mardikyan, 2015; Clemons, 2008). It is believed that customers should receive genuine value from products/services in the same way that previous customers did. According to Blackshaw and Nazzaro (2006), approximately 60% of online customers trust other customers’ product/service reviews. Customers tend to interact with other customers via social media on digitalised social networking sites that are convenient and effective for customers. The rapid growth of the virtual community has shifted the social benefits away from friends and relatives and toward friends made via the Internet (Akram et al., 2021). For instance, if internet users use Twitter, Facebook, LinkedIn, Instagram, etc., and obtain valuable information from other users, they will likely use them again the next time. Cha (2009) asserted that social media users shop through social networking sites when they know the services are valuable and easy to use (Tresa Sebastian et al., 2021). Therefore, users’ attitudes toward social media and behavioural intentions toward social media adoption are influenced by their level of satisfaction with the service and the value they derive from it.

Based on the above argument and the data from Table 6, we proposed the following hypotheses:

Hypothesis H6: Customer value will positively affect customers’ attitudes toward social media.

Hypothesis H7: Customer value will positively affect customers’ behavioural intention toward social media adoption.

2.7 The influence of attitude on behaviour intention toward social media adoption

Social media has rapidly infiltrated customers’ daily lives, establishing itself as a popular and influential social platform for communication and interaction (Correa et al., 2010; Dukhaykh, 2021). As a result, previous research has examined social media from various perspectives, including governmental and political, marketing, educational, and individual perspectives (Akar and Mardikyan, 2015). For example, Lin et al. (2014) discovered that students are more interested in sharing and receiving information about their courses via social media platforms such as Twitter, which are used as educational

tools and help students engage in classroom learning. Palmer (2013), on the other hand, concluded that universities use social media for a variety of purposes, including marketing, learning and teaching, student recruitment, alumni communication, student services, and libraries. Additionally, the results demonstrated that users are more interested in viewing photographs, listening to music, watching videos, reading, and following webpages when they intend to use them.

Based on the above argument and the data from Table 7, the following hypothesis is proposed:

Hypothesis H8: Customers' attitudes toward social media will positively affect customers' behaviour intention toward social media adoption.

Table 6 The illustrative coding of the hypotheses 6 and 7

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
<i>Hypothesis 6</i>					
So et al. (2021)	Customer value	Attitude toward social media	541	Questionnaire survey	USA
Liao et al. (2020)	Customer value	Attitude toward social media	319	Questionnaire survey	Cambodia
Anshu et al. (2022)	Customer value	Attitude toward social media	526	Questionnaire survey	India
Kim et al. (2013)	Customer value	Attitude toward social media	232	Questionnaire survey	USA
<i>Hypothesis 7</i>					
Wang and Zhang (2015)	Customer value	Behavioural intention	314	Questionnaire survey	China
Shan et al. (2020)	Customer value	Behavioural intention	446	Questionnaire survey	China
Lee et al. (2016)	Customer value	Behavioural intention	339	Questionnaire survey	South Korea
Park et al. (2013)	Customer value	Behavioural intention	497	Questionnaire survey	South Korea

Table 7 The illustrative coding of hypothesis 8

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
So et al. (2021)	Attitude	Behavioural intention	514	Questionnaire survey	USA
Hsu and Huang (2012)	Attitude	Behavioural intention	1524	Questionnaire survey	China
Kim et al. (2013)	Attitude	Behavioural intention	232	Questionnaire survey	USA
Kim (2021)	Attitude	Behavioural intention	314	Questionnaire survey	South Korea
Thomas and Vinales (2017)	Attitude	Behavioural intention	401	Questionnaire survey	USA

Table 7 The illustrative coding of hypothesis 8 (continued)

<i>Author(s) name</i>	<i>Independent variable</i>	<i>Dependent variable</i>	<i>Sample size</i>	<i>Method</i>	<i>Country</i>
Lee et al. (2006)	Attitude	Behavioural intention	104	Questionnaire survey	China
Hansen et al. (2004)	Attitude	Behavioural intention	2260	Questionnaire survey	Denmark and Sweden
Hidayat and Diwasasri (2013)	Attitude	Behavioural intention	250	Questionnaire survey	Indonesia
Budiman (2012)	Attitude	Behavioural intention	200	Questionnaire survey	Indonesia
Mohd Noor and Muhammad (2019)	Attitude	Behavioural intention	390	Questionnaire survey	Malaysia
Varshneya et al. (2017)	Attitude	Behavioural intention	160	Questionnaire survey	India
Bruner II and Kumar (2005)	Attitude	Behavioural intention	212	Questionnaire survey	USA
Kondo and Ishida (2014)	Attitude	Behavioural intention	723	Questionnaire survey	Japan and USA
Foltz et al. (2016)	Attitude	Behavioural intention	70	Questionnaire survey	USA
Kim et al. (2013)	Attitude	Behavioural intention	617	Questionnaire survey	South Korea
Ramadhani et al. (2020)	Attitude	Behavioural intention	226	Questionnaire survey	Indonesia
Zhao and Wang (2020)	Attitude	Behavioural intention	256	Questionnaire survey	China
Zhang et al. (2020)	Attitude	Behavioural intention	363	Questionnaire survey	China
Hong (2018)	Attitude	Behavioural intention	228	Questionnaire survey	Korea
Lu et al. (2009)	Attitude	Behavioural intention	250	Questionnaire survey	China
Kim et al. (2015)	Attitude	Behavioural intention	631	Questionnaire survey	USA
Lihua (2021)	Attitude	Behavioural intention	838	Questionnaire survey	China
Rauniar et al. (2014)	Attitude	Behavioural intention	398	Questionnaire survey	USA
Kwok and Yang (2017)	Attitude	Behavioural intention	737	Questionnaire survey	Colombia
Liao et al. (2008)	Attitude	Behavioural intention	542	Questionnaire survey	Taiwan
Praveena and Thomas (2014)	Attitude	Behavioural intention	197	Questionnaire survey	India
Alfany et al. (2019)	Attitude	Behavioural intention	125	Questionnaire survey	Indonesia

3 Research design and methodology

3.1 Meta-analysis

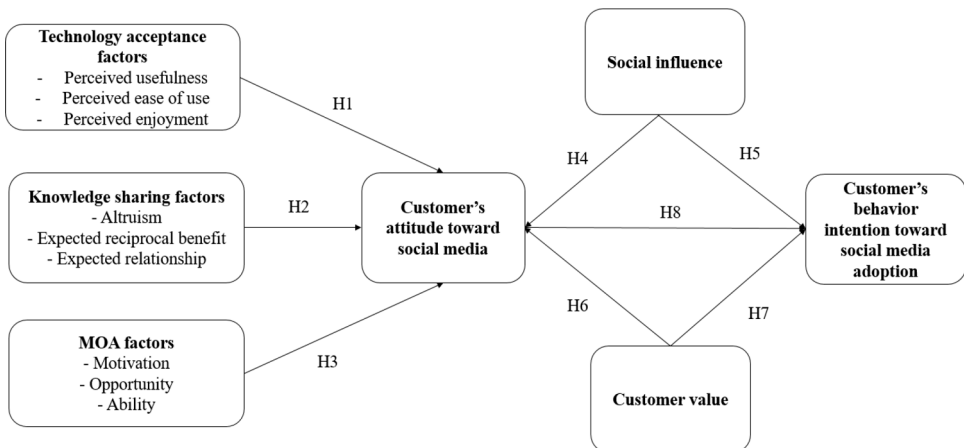
Meta-analysis is a type of statistical analysis that combines the findings of multiple scientific studies. When multiple scientific studies address the same question, meta-analysis can be performed, with each study reporting measurements that are expected to be inaccurate to some degree. The goal is then to employ statistical techniques to derive a pooled estimate closest to the unknown common truth based on how this error is perceived. The result of meta-analysis can also be used to compare with different study results and identify patterns, areas of disagreement between the results, or other interesting relationships that may emerge from multiple studies.

The formula is $r = 0.98\beta + 0.05\lambda$, where $\lambda = 1$ when β is non-negative, and $\lambda = 0$ when β is negative. Based on the common guideline of Lipsey and Wilson (2001), this study classified an effect size smaller than 0.1 ($r < 0.1$) as small, an effect size equal to 0.25 ($r = 0.25$) as a medium, and an effect size greater than 0.4 ($r > 0.4$) as large. To determine the significance of the correlation coefficient r , a 95% confidence interval (CI) was applied. A 95% CI around a point estimate that excludes zero suggests that the point estimate would be greater (or less) than zero in 95% of cases if the estimation procedures were repeated many times. The Q statistic expressed as chi-square was interpreted as indicating the effect size's homogeneity (Lipsey and Wilson, 2001). When the null hypothesis of homogeneity is rejected, it suggests that the observed difference in effect sizes is due to factors other than sampling error (De Matos and Rossi, 2008).

3.2 Research model

This study aimed to test some of the hypotheses about social media adoption using data from previous studies conducted between 2004 and 2020. The results of the meta-analysis can provide a comprehensive research framework for future empirical validation. A research framework was developed based on the literature review, as shown in Figure 1. The meta-analysis was used to integrate the results of previous studies and confirm the interrelationships between the research constructs.

Figure 1 Research framework



The following eight research hypotheses were identified in this work:

- H1 TAM factors such as perceived usefulness, perceived ease of use, and perceived enjoyment all have a positive influence on one's attitude toward social media
- H2 KSM factors such as altruism, expected reciprocal benefit, and expected relationships all have a positive influence on customer attitude toward social media
- H3 MOA factors such as motivation, opportunity, and ability all have a positive influence on attitude toward social media
- H4 Social influence has a positive impact on attitude toward social media
- H5 Social influence has a positive impact on behavioural intention toward social media adoption
- H6 Customer values have a positive impact on attitude toward social media
- H7 Customer values have a positive impact on behavioural intention toward social media adoption
- H8 Attitude toward social media has a positive impact on behavioural intention toward social media adoption.

3.3 Data collection procedure

A search of the literature in a scientific database was conducted to find previous studies relevant to this study. The literature search for this work was conducted using various methods (Palmatier et al., 2006), including the following: (a) a search of several electronic databases, including ISI, PsycINFO, ABI-Inform, Academic Search Elite, Business Source Elite, and WilsonBusiness; (b) a search of the Social Sciences Citation Index, focusing on seminal articles on social media usages; and (c) self-search of journals containing research on social media usages on a manual basis. Each construct associated with social media usage was viewed as a keyword and is searched in the journal database. This study collected the articles and conferences published between 2004 and 2020 to examine as many studies as possible using this model. The reason for excluding articles before 2004 is based on the situation that social media communication has become popular with the commercialisation of smartphones. Relevant studies regarding social media adoption in connections with social media are mostly later than 2004. The articles were also excluded if: (a) the article is purely theoretical or a literature review; (b) the article lacks empirical data; (c) the article's examination is unrelated to our hypotheses; and (d) the article lacks sufficient data to perform meta-analysis (Petter and McLean, 2009).

According to Peterson and Brown (2005), the following information was obtained from all identified studies: total sample size, the number of items used to measure each construct, correction for each hypothesis, and reliability of each variable. In addition, the following variables were examined in all selected articles: authors, year, journal, method, design, subjects, context, intention valence, and scenarios (De Matos and Rossi, 2008).

3.4 Inclusion criteria

There are two criteria for inclusion in the meta-analysis: (1) related studies must present the correction coefficient (r) or the standardised regression coefficient (β); (2) related studies must present the t -test or F-ratios with df in the numerator, which can be converted to r coefficients (Lipsey and Wilson, 2001; Peterson and Brown's, 2005). These values can be converted to correlation coefficients (r) by using comprehensive meta-analysis version 3 (Borenstein et al., 2014). This study chose the correlation coefficients (r) as the primary effect size metric because it is a scale-free measure that is frequently used in marketing research studies (De Matos and Rossi, 2008).

4 Results and discussions

The findings from the meta-analysis of the inter-relationships between the TAM factors, the KSM factors, the MOA factors, social influence, customer values, and attitudes and behavioural intentions toward social media adoption are illustrated in Table 8–11. As shown in Table 8, the research Hypothesis H1 stated that TAM factors such as perceived usefulness, perceived ease of use, and perceived enjoyment positively affect customers' attitudes toward social media. Using the mean values of the correlation coefficients from prior studies, this study's result showed that perceived usefulness significantly affects customers' attitudes toward social media ($r = 0.362$, $p < 0.000$). According to the criteria set out by Lipsey and Wilson (2001), the Q-value (160.632) is greater than the Chi-square value (48.27), indicating that the influence is distinct from the variation assigned to this variable rather than sampling mistakes. The index of heterogeneity (86.304%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 1a is supported and this study concluded that perceived usefulness significantly affects customers' attitudes toward social media.

Table 8 Meta-analysis results of the relationship between technology acceptance factors and attitude toward social media

<i>H.</i>	<i>Indep.</i>	<i>Dep.</i>	<i>Studies</i>	<i>N</i>	<i>r</i>	<i>LCI</i>	<i>UCI</i>	<i>p</i>	χ^2	<i>Q</i>	I^2
H1a	Perceived usefulness	Attitude toward social media	25	9784	0.362	0.343	0.381	0.000	48.27	160.632	86.304
H1b	Perceived ease of use	Attitude toward social media	25	9784	0.311	0.292	0.329	0.000	48.27	113.787	80.666
H1c	Perceived enjoyment	Attitude toward social media	15	7162	0.426	0.405	0.446	0.000	36.12	309.419	95.475

Table 9 Meta-analysis results of the relationship between knowledge sharing factors and attitude toward social media

H.	Indep.	Dep.	Studies	N	r	LCI	UCI	p	X ²	Q	I ²
H2a	Altruism	Attitude toward social media	8	2602	0.445	0.406	0.482	0.000	24.32	89.557	92.184
H2b	Expected Reciprocal benefit	Attitude toward social media	6	1539	0.161	0.108	0.214	0.000	18.47	60.255	93.361
H2c	Expected relationships	Attitude toward social media	6	1565	0.395	0.308	0.407	0.000	20.52	24.229	79.364

Table 10 Meta-analysis results of the relationship between motivation, opportunity, attitude factors and attitude toward social media

H.	Indep.	Dep.	Studies	N	r	LCI	UCI	p	X ²	Q	I ²
H3a	Motivation	Attitude toward social media	7	3210	0.328	0.289	0.366	0.000	22.46	35.756	83.220
H3b	Opportunity	Attitude toward social media	4	1141	0.230	0.192	0.268	0.000	16.27	146.753	97.956
H3c	Ability	Attitude toward social media	9	3226	0.402	0.373	0.431	0.000	29.59	154.175	93.513

Additionally, this study's result showed that perceived ease of use significantly impacts customers' attitudes toward social media ($r = 0.311, p < 0.000$). Following the criteria set out by Lipsey and Wilson (2001), the Q-value (113.787) is greater than the Chi-square value (48.27), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (80.666%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 1b is supported and this study concluded that perceived ease of use significantly affects customers' attitudes toward social media.

Furthermore, this study demonstrated that perceived enjoyment is a significant predictor of customers' attitudes toward social media ($r = 0.426, p < 0.000$). According to the criteria set out by Lipsey and Wilson (2001), the Q-value (309.419) is higher than the Chi-square value (36.12), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (95.475%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 1c is supported and this study concluded that perceived enjoyment significantly affects customers' attitudes toward social media.

According to Hypothesis H2, knowledge sharing factors will positively and significantly influence customers' attitudes toward social media. As shown in Table 9, altruism affects customers' attitudes toward social media ($r = 0.445, p < 0.000$).

Following the criteria set out by Lipsey and Wilson (2001), the Q-value (89.557) is greater than the Chi-square value (24.32), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (83.220%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 2a is supported and this study concluded that altruism significantly affects customers' attitudes toward social media.

Table 11 Meta-analysis results of the relationship between social influence, customer value, attitude toward social media and behavioural intention toward social media adoption

<i>H.</i>	<i>Indep.</i>	<i>Dep.</i>	<i>Studies</i>	<i>N</i>	<i>r</i>	<i>LCI</i>	<i>UCI</i>	<i>p</i>	χ^2	<i>Q</i>	<i>I</i> ²
H4	Social influence	Attitude toward social media	7	983	0.281	0.239	0.323	0.000	22.46	36.485	83.555
H5	Social influence	Behavioural intention toward social media adoption	13	10809	0.237	0.208	0.266	0.000	34.53	151.650	91.427
H6	Customer value	Attitude toward social media	4	1618	0.184	0.133	0.233	0.000	16.27	80.400	90.000
H7	Customer value	Behavioural intention toward social media adoption	4	1596	0.454	0.417	0.489	0.000	18.47	105.587	96.211
H8	Attitude toward social media	Behavioural intention toward social media adoption	27	12762	0.571	0.558	0.584	0.000	55.48	167.802	98.385

Additionally, expected reciprocal benefits influence customers' attitudes toward social media ($r = 0.161$, $p < 0.000$). According to the criteria set out by Lipsey and Wilson (2001), the Q-value (60.255) is higher than the Chi-square value (18.47), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (93.361%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 2a is supported and this study concluded that expected reciprocal benefit significantly affects customers' attitudes toward social media.

Furthermore, expected relationships have a positive influence on customers' attitudes toward social media ($r = 0.395$, $p < 0.000$). Following the criteria set out by Lipsey and Wilson (2001), the Q-value (24.229) is higher than the Chi-square value (20.52), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (79.364%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 2c is supported and this study concluded that expected relationships significantly impact customers' attitudes toward social media.

Similarly, as shown in Table 10, the results confirm the hypotheses. Hypothesis H3 stated that the MOA factors are positive predictors of attitude toward social media.

Particularly, motivation has a significant influence on customers' attitudes toward social media ($r = 0.328, p < 0.000$). Following the criteria set out by Lipsey and Wilson (2001), the Q-value (35.756) is higher than the Chi-square value (22.46), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (83.220%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 3a is supported and this study concluded that motivation significantly impacts customers' attitudes toward social media.

Additionally, opportunity positively influence attitude toward social media ($r = 0.230, p < 0.000$). Following the criteria set out by Lipsey and Wilson (2001), the Q-value (146.753) is higher than the Chi-square value (16.27), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (97.956%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 3b is supported and this study concluded that opportunity significantly impacts customers' attitudes toward social media.

Furthermore, ability significantly influences attitude toward social media ($r = 0.402, p < 0.000$). Following the criteria set out by Lipsey and Wilson (2001), the Q-value (154.175) is greater than the Chi-square value (29.59) indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (93.513%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 3c is supported and this study concluded that ability significantly impacts customers' attitudes toward social media.

Table 11 presents the relationships between social influence, customer value, attitude toward social media, and behavioural intention toward social media adoption. Hypotheses H4 and H5 stated that social influence positively influences customers' attitudes and behavioural intentions toward social media adoption. The results indicated that social influence has a positive influence on attitude ($r = 0.281, p < 0.000$) and behavioural intention toward social media adoption ($r = 0.237, p < 0.000$). Following the criteria set out by Lipsey and Wilson (2001), the Q-value of H4 and H5 (36.485, 151.650, respectively) are greater than their Chi-square value (22.46, 34.53, respectively), indicating that these influences are distinct from the variation assigned to variables rather than sampling errors. The index of heterogeneity of H4 and H5 (83.555%, 91.427%, respectively) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 3c is supported and this study concluded that social influence positively affects attitudes and behavioural intentions toward social media adoption.

Furthermore, Hypotheses H6 and H7 proposed that customer values positively influence attitudes and behavioural intentions toward social media adoption. The research results indicate that there are significant relationships between customer value and attitude ($r = 0.184, p < 0.000$) and behavioural intention toward social media adoption ($r = 0.454, p < 0.000$). According to the criteria set out by Lipsey and Wilson (2001), the Q-value of H6 and H7 (36.485, 151.650, respectively) are greater than their Chi-square value (16.27, 18.47, respectively), indicating that these influences are distinct from the variation assigned to variables rather than sampling errors. The index of heterogeneity of H4 and H5 (90.000%, 96.211%, respectively) illustrated that these hypotheses have high heterogeneity. Therefore, H6 and H7 are supported and this study concluded that customer values positively influence attitudes and behavioural intentions toward social media adoption.

Finally, according to hypothesis H8, a customer's attitude toward social media positively influences behavioural intention. The results in Table 4 confirmed that

attitudes toward social media are a significant predictor of behavioural intention toward social media adoption ($r = 0.571, p < 0.000$). Following the criteria set out by Lipsey and Wilson (2001), the Q-value (167.802) is higher than the Chi-square value (55.48), indicating that the influence is distinct from the variation assigned to this variable rather than sampling errors. The index of heterogeneity (98.358%) illustrated that this hypothesis has high heterogeneity. Therefore, hypothesis 8 is supported and this study concluded that customers' attitude toward social media positively influences behavioural intention.

5 Conclusions

As more customers use social media to create, modify, and share internet content, firms must quickly adapt to the shift in public opinion caused by social media. Therefore, social media is becoming an increasingly important communication tool. Although there is a considerable amount of the prior studies investigating the relationship between research variables in the context of social media adoption, it is difficult to determine strong links to the above hypothesis due to the multidimensional character of the structures and the discrepancies between the studies (Wu et al., 2018). This study validated 195 research papers and conferences with the level of individual investigations with the intent to get a conclusion. Through the meta-analysis, eight hypotheses were examined and several conclusions are primarily made as below.

First of all, this study confirmed that the TAM model including perceived usefulness, perceived ease of use, and perceived enjoyment are all important antecedents of customers' attitudes toward social media. These results are consistent with the findings of Park and Chen (2007) and Elkaseh et al. (2016), who also indicated that perceived ease of use and perceived utility have a significant effect on customers' attitudes toward social media. Especially respondents who use social media find it interesting, entertaining, and enjoyable; Therefore, perceived enjoyment significantly influences customers' attitudes toward social media (Curran and Lennon, 2011; Ramadani et al., 2014; Venkatesh et al., 2003).

Second, this study concluded that KSF including altruism, expected reciprocal benefits, and expected relationships significantly influence social media attitudes. These three factors of core values were critical in enhancing customers' attitudes toward social media. In the social media adoption process, altruism emerges entirely from within an individual to benefit or resolve the difficulties of others without seeking feedback (Ma and Chan, 2014). Reciprocity is the exchange of knowledge between sender and receiver and vice versa (Chang and Chuang, 2011). A relationship was developed in a virtual community where individuals with similar interests could share information. These findings are in line with Han et al. (2010) who stated that social media is used by customers and firms alike to build relationships with friends and other relevant parties.

Third, the present study revealed that MOA factors including motivation, opportunity, and ability significantly influence attitudes toward social media. In many cases, customers may be motivated to engage in social media activities but lack the means to do so. Even if they have motivation and opportunity, they may have only a limited capacity for social media engagement. Our study results confirmed the importance of MOA factors which are considered the 'push' factors that influence customers' attitudes and behavioural intentions toward social media adoption.

Fourth, social influence factors such as social norms and social interactions significantly impact customers' attitudes and behavioural intentions regarding social media adoption. In the process of marketing communication, social influence is critical. According to the social influence model (Malhotra and Galletta, 1999), social trust can help foster an environment conducive to the virtual community's continuation (Ridings et al., 2002). Additionally, social trust will promote social norms, social interactions, and behaviour intent to use social media (Chih et al., 2012). These study results are also in line with the empirical study which found that social influence affects behavioural intention toward social media adoption (Yin and Shi, 2019).

Finally, this study confirmed that customer values significantly influence customer attitudes and behavioural intentions regarding social media adoption. As contended by Zeithaml (1988), in the overall assessment of a product's utility, customers tend to perceive a higher personal and sensory value of a product when it fulfils customer needs and wants. Kim et al. (2007) also recognised customer value as a critical factor influencing customers' purchase willingness. This study result is also consistent with the findings of Schivinski et al. (2019) who argued that customer value has played an important role in improving customers' attitudes and behavioural intentions toward social media adoption.

6 Theoretical implication

This study analyses the phenomenon of customers' social media adoption by utilising the meta-analysis approach. Accordingly, this study provides evidence that the TAM model (perceived ease of use, perceived usefulness, and perceived enjoyment) was a significant influence on three factors on customers' attitudes toward social media. Additionally, the present study shows that KSM factors (altruism, expected reciprocal benefits, and expected relationships) were a considerable impact on customers' attitudes toward social media. Furthermore, our study result concluded that the MOA factors (motivation, opportunity, and ability) have a significant influence on customers' attitudes toward social media. Moreover, this study used the social influence and customer value models to explain the impact of social norms, social interaction, and customer values on attitudes and behavioural intentions toward social media adoption. Additional empirical validations can be conducted to confirm the generalisability of the research to determine the contingent weight to emphasise different research variables in different consumption environments.

7 Practical implication

Several practical implications can be drawn from this research's conclusion. Firstly, this study provides deep insights for practitioners into how to utilise the TAM model, KSF, and MOA factors in a comprehensive model to improve the behaviour intention of customers toward social media adoption. This study's results highlight the significant influence of attitude toward social media, social influence, and customer value on the behaviour intention of customers toward social media adoption. Therefore, a business leader should promote these three factors to enhance the attitude level of their customers which can strengthen the behaviour intention toward social media adoption. Second, to

promote social media adoption, managers must support their employees' social media projects and investments in internet technology infrastructure and provide the necessary training for their employees' internet technology skills (Hoffmann et al., 2014; Khoumbati and Thermistocleous, 2006). Third, businesses should develop a clear plan outlining how they intend to use social media to attract customers to adopt social media (McCann and Barlow, 2015; Troise et al., 2021). Fourth, social media strategies for firms must consider social influence factors and customer values factors. Along with the rapidly changing social media environment and its complexity, firms' social media plans have become increasingly important (Noone et al., 2011). Thus, to reap the benefits of social media, organisations must develop a detailed strategy for its use and carefully consider why they are using it, how it can support business objectives and plans, and the financial resources available for using social media (Ahmed and Ibrahim, 2017; Stockdale et al., 2012).

8 Limitation and future research direction

Meta-analysis has long been regarded as a beneficial technique for integrating the results of previous studies by using quantified and accurate data to summarise the estimates and test the research hypotheses. However, it has been criticised for ignoring differences between research settings, for an increasing tendency to mix up trials unintentionally, and for failing to account for bias caused by within-study bias, variation across studies, and reporting bias (Shuttleworth and Wilson, 2009). Despite these limitations, meta-analysis has the potential to increase the power and precision with which a research question is answered by integrating the results of several previous studies.

Despite the fact that there have been many studies on the adoption of social media, many of them examine the issue from a single perspective. Thus, our research has adopted a multiple-theory approach to examine the phenomenon of social media adoption. The concepts of competing theories are applied to evaluate the significance of the influences from various perspectives. Future research can build on the findings of this study to conduct additional empirical validations or broaden the scope of the research model. The results of this study may be very informative in gaining a better understanding of social media adoption from the perspectives of technology, motivation, knowledge sharing, and social influences. Additionally, future studies can extend the study period and include more studies in a meta-analysis. Specifically, the different research settings and biases inherent in data collection must be carefully considered. Finally, due to the limited publication among variables of TAM, KSF, and MOA, this study did not investigate the relationship between social media adoption and firm strategy. The researcher can focus on this relationship in the near future.

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