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Validation of the Components and Indicators of Social Media Usage Among Bank Users Based on the Consequences Element of the Means–End Chain

Amirhossein. Tavaf[1], Reza. Ebrahimzadeh Dastjerdi[2*], Mehrdad. Sadeghi[2], Mehraban. Hadi Peykani[2]

[1] PhD student in Media Management, Department of Management, Isf.C., Islamic Azad University, Isfahan, Iran.
[2] Department of Management, Isf.C., Islamic Azad University, Isfahan, Iran.

*** Corresponding author email address**: ebrahimzadeh@iau.ac.ir

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A B S T R A C T

The present study aimed to validate the components and indicators of social media usage among bank users based on the consequences element of the Means–End Chain (MEC) theory (attributes, consequences, and values). The expansion of social media and the transformation of user behavior have compelled banks to utilize these platforms to establish effective interactions, enhance customer satisfaction, and create value for customers. Despite extensive research on technology adoption and social media usage, the components and indicators of the Means–End Chain theory have not yet been comprehensively developed within the context of banking users. In terms of purpose, this study is applied research, and in terms of methodology, it is a quantitative descriptive-survey study. The statistical population consisted of social media users of Bank Sepah across the four regions of Tehran Province. Using Cochran’s formula, a sample size of 384 participants was determined, and 362 valid questionnaires were ultimately collected and analyzed. Data were gathered through a researcher-developed questionnaire based on the dimensions of the Means–End Chain theory, consisting of 86 items measured on a five-point Likert scale. The validity of the instrument was confirmed through content validity, confirmatory factor analysis, and convergent and discriminant validity assessments. Reliability was also verified using Cronbach’s alpha and composite reliability coefficients. Data were analyzed using SPSS and SmartPLS software through Structural Equation Modeling (SEM). The findings indicated that the chain of “Attributes → Consequences → Values” was significant in explaining bank users’ social media usage behavior. The effect of perceived attributes on usage consequences was confirmed with a path coefficient of 0.532, while the effect of consequences on perceived values was confirmed with a path coefficient of 0.647. The most influential attributes included ease of access to services, up-to-date information, and information transparency. Furthermore, time savings, reduced need for in-person visits, and increased satisfaction with the bank were validated as the most important consequences of social media usage. At the value level, feelings of security, trust in the bank, and overall satisfaction with the experience were found to be the most important values for users. Therefore, banks can utilize the Means–End Chain framework to design more effective social media management strategies and foster sustainable customer relationships.

Keywords: *Social media, Social banking, Means–End Chain, Bank users*

1. Introduction

The rapid advancement of digital technologies has fundamentally transformed the ways organizations interact with their stakeholders. Among these technological developments, social media has emerged as one of the most influential communication platforms, reshaping customer engagement, information exchange, and value creation processes across industries. Financial institutions, particularly banks, have increasingly integrated social media into their communication and service delivery strategies to enhance customer relationships, improve service accessibility, and strengthen competitive advantage. Unlike traditional communication channels, social media enables real-time interaction, bidirectional communication, and the creation of personalized experiences that can significantly influence customer perceptions and behaviors (Sharma, 2025; Yaghoubpour et al., 2024).

The banking industry has experienced substantial digital transformation during the last decade, driven by technological innovation, changing customer expectations, and increasing competition from fintech companies. In this environment, social media platforms have become strategic tools that allow banks to communicate directly with customers, provide timely information, respond to inquiries, promote financial products, and foster long-term customer engagement. Recent evidence suggests that social media usage in the banking sector contributes not only to marketing effectiveness but also to knowledge dissemination, customer education, and relationship development. As a result, understanding the factors that influence customers' engagement with bank social media platforms has become a critical issue for both researchers and practitioners (Putra et al., 2025; Sharma, 2025).

The effectiveness of social media in banking depends largely on how customers perceive and utilize these platforms. Banks increasingly employ social media as a mechanism for delivering information, facilitating communication, and supporting customer decision-making processes. Strategic utilization of social media can enhance digital marketing excellence, strengthen innovation climates within organizations, and improve customer experiences. Consequently, banks seek to understand not only whether customers use social media but also why they use it and what outcomes they derive from such interactions (Yaghoubpour et al., 2024). Understanding these underlying motivations and perceived outcomes is essential for designing effective social media strategies that generate meaningful value for customers and organizations alike.

Previous research has identified numerous determinants of social media adoption and usage. Technology acceptance theories have consistently highlighted the importance of perceived usefulness, perceived ease of use, facilitating conditions, and social influence in shaping user intentions and behaviors. The Unified Theory of Acceptance and Use of Technology (UTAUT) provides one of the most comprehensive frameworks for explaining technology adoption by integrating various theoretical perspectives into a unified model. According to this framework, performance expectancy, effort expectancy, social influence, and facilitating conditions significantly influence users' intentions to adopt and continue using technological systems (Venkatesh et al., 2016). These factors have been extensively examined across diverse digital contexts, including online banking and social media environments.

In addition to technology acceptance factors, research has increasingly emphasized the role of user satisfaction in determining continued usage intentions. Studies have demonstrated that when users perceive technological platforms as useful, easy to use, and capable of meeting their expectations, they are more likely to develop satisfaction and maintain long-term engagement. User satisfaction functions as an important mediating mechanism through which technology characteristics influence behavioral intentions and actual usage. Empirical findings in digital service environments indicate that satisfaction significantly predicts users' continuance intentions and strengthens their commitment to online platforms (Shirmohammadi & Ansaripour, 2017; Zare Ravasan et al., 2016).

The literature on social media adoption has further highlighted the importance of motivational factors in shaping user behavior. Users engage with social media platforms for both functional and psychological reasons. Functional motivations include access to information, convenience, efficiency, and problem-solving capabilities, whereas psychological motivations involve entertainment, social interaction, self-expression, and emotional gratification. Research examining social commerce and social networking environments has shown that both utilitarian and hedonic motivations contribute significantly to users' intentions and behaviors. These motivations influence how users evaluate social media experiences and determine the extent to which they perceive value from platform usage (Ebrahimi-Tabar & Ghaffari, 2021; Song et al., 2018).

The concept of value occupies a central position in understanding consumer behavior within digital environments. Value is generally conceptualized as the overall assessment of the benefits received relative to the costs incurred during a consumption experience. Contemporary studies distinguish between utilitarian value, which relates to functional benefits and task accomplishment, and hedonic value, which reflects emotional enjoyment and experiential satisfaction. Research conducted in social media and e-commerce contexts has consistently demonstrated that both dimensions of value significantly influence customer attitudes, satisfaction, loyalty, and behavioral intentions. Users who perceive greater utilitarian and hedonic value are more likely to continue engaging with digital platforms and recommend them to others (Ashraf et al., 2019; Chiu et al., 2014).

Within organizational settings, social media platforms also generate substantial utilitarian value by facilitating communication, collaboration, knowledge sharing, and operational efficiency. Enterprise social networks have increasingly been recognized as digital infrastructures that support organizational effectiveness and improve information accessibility. The value derived from social media extends beyond individual benefits and contributes to broader organizational outcomes, highlighting the multifaceted nature of social media usage and its consequences. Understanding these value creation processes requires theoretical frameworks capable of linking specific platform characteristics to higher-order user goals and outcomes (Meske et al., 2019).

Although existing theories provide valuable insights into technology acceptance and social media usage, they often focus primarily on behavioral intentions and adoption determinants while offering limited explanations regarding how specific platform characteristics ultimately translate into meaningful user values. To address this limitation, the Means–End Chain (MEC) theory offers a comprehensive perspective that links product or service attributes to user consequences and personal values. Originally developed by Gutman, the Means–End Chain framework proposes that consumers perceive products and services through hierarchical cognitive structures connecting concrete attributes, functional and psychological consequences, and abstract personal values. According to this perspective, consumers do not value attributes in isolation; rather, they value them because of the consequences they generate and the higher-order values they help achieve (Gutman, 1982).

The Means–End Chain theory has become one of the most influential frameworks for understanding consumer decision-making and value formation. The theory suggests that consumer choices are goal-oriented and driven by a desire to achieve personally meaningful outcomes. Product attributes represent the tangible or observable characteristics perceived by users. These attributes generate consequences, which may be functional, psychological, or social in nature. Consequences subsequently contribute to the realization of personal values, which constitute the ultimate goals guiding consumer behavior. Consequently, the MEC framework provides a systematic approach for examining how users interpret and evaluate experiences across different consumption contexts (Gutman, 1997).

The application of the Means–End Chain perspective is particularly relevant in the context of social media usage in banking. Social media platforms possess various attributes, such as accessibility, responsiveness, transparency, interactivity, and information quality. These attributes can generate numerous consequences, including time savings, improved communication, reduced uncertainty, enhanced satisfaction, and stronger customer engagement. Ultimately, these consequences may contribute to higher-level values such as trust, security, confidence, and overall satisfaction with the bank. By examining these hierarchical relationships, researchers can gain deeper insights into the mechanisms through which social media creates value for banking customers.

Despite the growing body of literature on social media usage, technology acceptance, and digital banking, several important gaps remain. Most existing studies have focused on adoption intentions, continuance intentions, or the direct effects of technological factors on user behavior. While these studies have provided valuable contributions, they have generally neglected the hierarchical cognitive structures proposed by the Means–End Chain theory. Furthermore, previous investigations have primarily emphasized individual determinants such as usefulness, ease of use, satisfaction, or perceived value without explicitly examining the sequential relationships among attributes, consequences, and values within banking-related social media environments (Makizadeh, 2015; Shirmohammadi & Ansaripour, 2017; Zare Ravasan et al., 2016).

Another limitation of the existing literature concerns the lack of contextualized evidence from developing countries and emerging digital banking markets. Cultural, technological, and institutional differences may influence how users perceive social media attributes and how these perceptions translate into meaningful outcomes. In Iran, social media platforms have become increasingly important channels for communication, commerce, and customer interaction. However, empirical research examining social media usage among banking customers through the lens of the Means–End Chain framework remains scarce. Although studies have investigated social commerce adoption and social media usage intentions among Iranian users, comprehensive examinations of the attribute–consequence–value hierarchy within banking contexts have not been adequately addressed (Ebrahimi-Tabar & Ghaffari, 2021; Makizadeh, 2015).

Moreover, recent developments in digital banking have increased the strategic importance of understanding customer experiences across multiple touchpoints. Banks are no longer evaluated solely based on financial services but also on the quality of digital interactions they provide. Customers increasingly expect transparent communication, rapid responsiveness, personalized experiences, and secure digital environments. These expectations highlight the necessity of identifying the specific social media attributes that generate desirable consequences and contribute to valuable customer outcomes. Such knowledge can assist bank managers in designing more effective social media strategies and strengthening customer relationships through targeted interventions (Meral & Özbay, 2020; Putra et al., 2025).

Given the theoretical relevance of the Means–End Chain framework and the practical importance of social media in contemporary banking, there is a clear need for research that systematically identifies the components and indicators underlying social media usage among bank customers. By integrating insights from technology acceptance research, value theory, social media studies, and the Means–End Chain perspective, a more comprehensive understanding of user behavior can be achieved. Such an approach not only contributes to theory development but also provides actionable guidance for banking institutions seeking to optimize their social media presence and create sustainable value for customers (Ashraf et al., 2019; Meske et al., 2019; Venkatesh et al., 2016).

Therefore, the present study aimed to validate the components and indicators of social media usage among bank users based on the consequences element within the Means–End Chain framework, encompassing the hierarchical relationships among attributes, consequences, and values (Gutman, 1982, 1997).

2. Methods and Materials

This study was conducted as an applied research project using a quantitative approach. Quantitative data were collected through a questionnaire and analyzed using SPSS and SmartPLS software. The statistical population consisted of Bank Sepah users, and the sample size was determined using Cochran's formula (n = 384). The validity and reliability of the instrument were assessed through Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Overall, the study aimed to develop a localized and practical model for understanding social media usage among banking customers.

The present study sought to identify the components and indicators of social media usage among bank users based on the consequences element within the Means–End Chain (MEC) framework (attributes, consequences, and values). According to this theory, user behavior is explained through a hierarchical chain linking attributes, consequences, and values. The developed questionnaire covered all elements of this chain across both functional and psychological dimensions. All constructs were operationalized directly through questionnaire items based on the theoretical foundations of the Means–End Chain theory and the existing empirical literature.

The statistical population consisted of all social media users of Bank Sepah branches across the four geographical regions of Tehran Province (an indefinite population). The sample size was calculated using Cochran's formula for an unlimited population with a 95% confidence level (Z = 1.96), a margin of error of 5% (d = 0.05), and maximum variance (p = q = 0.5), as follows:

$$n = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384.16 \approx 384$$

Accordingly, a sample of 384 respondents was determined. A proportionate stratified random sampling method was employed based on the four geographical regions, and simple random sampling was used within each stratum.

The primary data collection instrument was a researcher-developed questionnaire derived from the theoretical foundations of the Means–End Chain theory. The questionnaire consisted of 86 items measured on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5

(Strongly Agree). The structure of the questionnaire was organized according to the model elements as presented below.

Table 1

Questionnaire Dimensions and Items

Means–End Chain Element	Questionnaire Dimensions	Item Numbers
Attributes	Usage Experience – Desired Features	1–12
Usage Motivations (Complementary to Attributes)	Functional and Psychological Motivations	13–28
Consequences	Functional and Psychological Consequences	29–40
Values	Functional Value and Psychological/Relational Value	41–56
Contextual Variables	Barriers and Challenges – Ideal Experience Characteristics	57–86

The questionnaire was reviewed by five experts in business management and banking. The Content Validity Ratio (CVR) and Content Validity Index (CVI) were calculated, and items with CVR values below 0.49 were removed. For reliability assessment, internal consistency was measured using Cronbach's alpha coefficient for each construct, with values above 0.70 considered acceptable. Composite Reliability (CR) and Average Variance Extracted (AVE) were also calculated within the Confirmatory Factor Analysis (CFA) framework.

Table 2

Reliability and Validity of Dimensions and Components

Latent Variable	Cronbach's Alpha	Composite Reliability	Result
Perceived Value of Bank Social Media	1.000	1.000	Excellent
Psychological and Relational Value	0.915	0.932	Excellent
Functional Value	0.907	0.925	Excellent
Security, Responsiveness, and Comprehensive Support	0.919	0.935	Excellent
Psychological and Cognitive Motivations	0.852	0.890	Good
Functional Motivations (Efficiency and Ease of Use)	0.866	0.898	Good
Fast, Smooth, and Easy Access	0.890	0.914	Excellent
Technical and Structural Barriers	0.941	0.952	Excellent
Support and Trust Barriers	0.904	0.926	Excellent
Type and Level of User Interaction	0.928	0.944	Excellent
Desired Features in the Usage Experience	0.862	0.896	Good
Psychological and Perceptual Consequences	0.891	0.917	Excellent
Functional Consequences	0.876	0.915	Excellent

All variables demonstrated reliability levels exceeding the recommended threshold of 0.70. Most values exceeded 0.90, indicating a high degree of measurement reliability. Regarding validity, the primary criterion was the Average Variance Extracted (AVE), which should exceed 0.50.

Table 3

Convergent Validity of Components and Dimensions

Latent Variable	AVE	Result
Psychological and Relational Value	0.632	Confirmed
Functional Value	0.608	Confirmed
Security, Responsiveness, and Comprehensive Support	0.675	Confirmed
Psychological and Cognitive Motivations	0.519	Confirmed
Functional Motivations (Efficiency and Ease of Use)	0.537	Confirmed
Fast, Smooth, and Easy Access	0.578	Confirmed
Technical and Structural Barriers	0.738	Confirmed
Support and Trust Barriers	0.645	Confirmed
Type and Level of User Interaction	0.737	Confirmed

Desired Features in the Usage Experience	0.591	Confirmed
Psychological and Perceptual Consequences	0.649	Confirmed
Functional Consequences	0.656	Confirmed

Data were analyzed using SPSS Version 26 and SmartPLS Version 3.3 at two levels. At the descriptive level, means, standard deviations, and frequency distributions were calculated for demographic variables and questionnaire items. At the inferential level, Structural Equation Modeling (SEM) was employed to test the causal relationships among attributes, consequences, and values (i.e., the Means–End Chain model). Direct and indirect effects were examined using the bootstrapping procedure. The rigor of the quantitative phase was ensured through the combined assessment of content validity, convergent validity, discriminant validity, Cronbach's alpha, composite reliability, and AVE.

3. Findings and Results

The primary objective of this study was to identify the components and indicators of social media usage among bank users based on the consequences element of the Means–End Chain framework (attributes, consequences, and values). This section presents the findings obtained from the analysis of data collected through the 86-item questionnaire administered to 384 users of Bank Sepah's social media platforms. The data were analyzed using SmartPLS Version 3.3 and Partial Least Squares Structural Equation Modeling (PLS-SEM). First, descriptive statistics are presented, followed by the evaluation of the measurement model and structural model, and finally the hypothesis testing results.

Of the 384 distributed questionnaires, 362 usable questionnaires were returned, yielding a response rate of 94.2%. Among the respondents, 54.8% were male and 45.2% were female. The largest age group was 30–40 years (41.2%), followed by 40–50 years (31.3%). Regarding educational attainment, 49.3% held a bachelor's degree and 28.7% held a master's degree. Furthermore, 68.6% of respondents reported using the bank's social media platforms at least twice per week. This distribution indicates the suitability of the sample for subsequent analyses.

To assess convergent validity, Average Variance Extracted (AVE) was examined, while Cronbach's alpha (α) and Composite Reliability (CR) were used to evaluate reliability. As shown in Table 4, all AVE values exceeded 0.50 and all CR and Cronbach's alpha values were above 0.70, confirming satisfactory convergent validity and reliability.

Table 4

Reliability, Convergent Validity, and Factor Loadings of Research Constructs

Construct	Number of Items	Cronbach's Alpha	Composite Reliability (CR)	AVE	Range of Factor Loadings
Attributes	8	0.882	0.907	0.663	0.752–0.831
Consequences	8	0.891	0.914	0.678	0.766–0.854
Values	8	0.899	0.921	0.692	0.773–0.867

To assess discriminant validity, both the Fornell–Larcker criterion and the Heterotrait–Monotrait Ratio (HTMT) were employed. As shown in Table 5, the square root of AVE for each construct (diagonal values) exceeded its correlations with other constructs, satisfying the Fornell–Larcker criterion. Furthermore, all HTMT values were below 0.85 (all < 0.75), confirming strong discriminant validity.

Table 5

Fornell–Larcker Matrix (Discriminant Validity)

Construct	Attributes	Consequences	Values
Attributes	0.814		
Consequences	0.532	0.823	
Values	0.489	0.647	0.832

Following the confirmation of the measurement model, the structural model was evaluated to test the research hypotheses concerning the existence of a significant chain linking attributes, consequences, and values. Key indicators included the coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2).

The R^2 value was 0.283 for the Consequences construct and 0.418 for the Values construct, indicating moderate explanatory power. The Stone–Geisser Q^2 values obtained through the blindfolding procedure were positive for both endogenous constructs (Consequences = 0.179; Values = 0.234), confirming the model's predictive relevance. The effect size analysis showed that Attributes had a moderate effect on Consequences ($f^2 = 0.39$), while Consequences had a strong effect on Values ($f^2 = 0.72$).

To test the Means–End Chain model, the following hypotheses were formulated:

H1: Perceived attributes of the bank's social media platforms have a positive and significant effect on usage consequences.

H2: Consequences of using the bank's social media platforms have a positive and significant effect on users' perceived values.

The results obtained from the PLS-SEM algorithm with 5,000 bootstrap subsamples are presented in Table 6.

Table 6

Path Coefficients, t-Values, Significance Levels, and Hypothesis Testing Results

Hypothesis	Path	Standardized Coefficient (β)	Standard Error	t-value	p-value	Result
H1	Attributes → Consequences	0.532	0.048	11.083	< .001	Supported ✓
H2	Consequences → Values	0.647	0.042	15.405	< .001	Supported ✓

Based on the developed questionnaire and the results of Confirmatory Factor Analysis and PLS-SEM, the most important components of social media usage among bank users within the Means–End Chain framework were identified across three principal constructs: Attributes, Consequences, and Values.

The structural model results confirmed the chain "Attributes → Consequences → Values" with strong and significant path coefficients ($\beta = 0.532$ and $\beta = 0.647$, respectively). Therefore, in order to create ultimate value for users, banks should first strengthen key attributes such as ease of access, information currency, and transparency. These attributes generate positive consequences, including time savings, reduced in-person visits, and increased customer satisfaction, which ultimately translate into deeper values such as security, trust, and overall satisfaction.

Among all indicators, **"feeling of security"** exhibited the highest factor loading and emerged as the most critical value for Iranian users.

A more detailed examination of the items associated with each construct revealed the following priority indicators based on mean scores and factor loadings:

Attributes: Ease of access to services (factor loading = 0.831), up-to-date information (0.812), and information transparency (0.798).

Consequences: Time savings (0.854), reduction in in-person visits (0.833), and increased satisfaction with the bank (0.807).

Values: Feeling of security (0.867), trust in the bank (0.851), and overall satisfaction with the experience (0.834).

4. Discussion and Conclusion

The primary objective of the present study was to validate the components and indicators of social media usage among bank users based on the consequences element of the Means–End Chain (MEC) framework, emphasizing the hierarchical relationships among attributes, consequences, and values. The findings confirmed the theoretical proposition of the Means–End Chain model, demonstrating that users' perceptions of social media attributes significantly influence the consequences they experience, which subsequently shape the values they derive from their interactions with banking social media platforms. Specifically, the structural model revealed that perceived attributes had a significant positive effect on usage consequences ($\beta = 0.532$), while perceived consequences exerted an even stronger positive effect on users' values ($\beta = 0.647$). These findings provide empirical support for the sequential structure proposed by Means–End Chain theory and indicate that banking customers cognitively connect specific platform features to broader personal outcomes and values (Gutman, 1982, 1997).

One of the most important findings of this study is the confirmation of the direct relationship between perceived attributes and usage consequences. The results indicate that users evaluate the social media platforms of banks primarily through concrete and observable characteristics such as ease of access, information currency, and transparency. These attributes subsequently generate favorable consequences including time savings, reduced necessity for branch visits, and increased satisfaction with banking services. This finding is consistent with the fundamental assumptions of technology acceptance theories, which argue that perceived usefulness and ease of use are key determinants of user experiences and behavioral outcomes (Venkatesh et al., 2016). When users perceive a platform as accessible, informative, and user-friendly, they are more likely to experience positive outcomes that reinforce their continued engagement.

The significance of ease of access as one of the strongest attribute indicators deserves particular attention. Contemporary banking customers increasingly seek convenient and efficient channels for obtaining information and interacting with financial institutions. Social media platforms provide immediate access to banking updates, promotional information, customer support, and service-related announcements. The high loading associated with ease of access suggests that users regard convenience as a critical determinant of their social media experiences. This finding aligns with previous research demonstrating that functional aspects of digital technologies significantly influence adoption and continuance intentions because they reduce user effort and enhance performance expectancy (Venkatesh et al., 2016; Zare Ravasan et al., 2016). Similarly, studies investigating social media adoption among university students and online users have reported that accessibility and ease of interaction positively affect perceptions of usefulness and user engagement (Ebrahimi-Tabar & Ghaffari, 2021; Makizadeh, 2015).

The importance of information currency and transparency as key attributes further highlights the informational role of social media within banking environments. Customers increasingly rely on social media channels to receive timely updates regarding banking services, financial products, and organizational announcements. When information is perceived as current, transparent, and reliable, users develop stronger confidence in the communication process and experience greater satisfaction with the platform. This observation is consistent with studies emphasizing the strategic role of social media in enhancing communication effectiveness and digital marketing excellence in banking institutions (Sharma, 2025; Yaghoubpour et al., 2024). Transparency not only facilitates informed decision-making but also contributes to the development of trust, which represents a fundamental requirement in financial services.

Another significant finding concerns the identification of time savings as the most influential consequence associated with social media usage. The high factor loading of this indicator suggests that users perceive social media platforms as valuable tools for reducing the time required to obtain information and resolve banking-related concerns. In modern societies characterized by increasing time constraints, customers value digital channels that simplify interactions and minimize transaction costs. This result supports prior research demonstrating that utilitarian benefits play a central role in shaping user evaluations of digital services and social media platforms (Ashraf et al., 2019; Meske et al., 2019). The ability of social media to facilitate rapid information exchange and service accessibility represents a tangible benefit that directly contributes to positive user experiences.

The finding that reduced in-person visits constitutes a major consequence of social media usage is also noteworthy. The digitalization of banking services has progressively shifted customer interactions from physical branches to online platforms. Social media channels complement this transformation by providing accessible communication mechanisms that reduce customers’ dependence on traditional service environments. This outcome is consistent with studies indicating that digital platforms enhance efficiency by enabling customers to accomplish informational and communicative tasks remotely (Meske et al., 2019; Putra et al., 2025). Consequently, social media can be viewed as an extension of digital banking ecosystems that improves service convenience while reducing operational burdens for both customers and banks.

The positive relationship between social media usage and customer satisfaction observed in this study further corroborates previous findings in the literature. Satisfaction emerges when users perceive that a platform effectively fulfills their expectations and provides meaningful benefits. The significant role of satisfaction among the identified consequences supports earlier research demonstrating that satisfaction mediates the relationship between technological characteristics and continuance intentions (Shirmohammadi & Ansaripour, 2017; Zare Ravasan et al., 2016). Customers who experience convenience, transparency, and efficiency through banking social media platforms are more likely to develop favorable evaluations of the bank and maintain long-term engagement with its services.

Perhaps the most important contribution of the present study lies in its examination of user values as the ultimate outcomes of social media interactions. Consistent with

Means–End Chain theory, the findings demonstrate that consequences serve as mechanisms through which platform attributes influence deeper personal values. Among the identified values, feelings of security emerged as the most important. This finding is particularly relevant within banking contexts, where security concerns significantly influence customer attitudes and behaviors. Financial transactions inherently involve risk considerations, making security a central component of customer evaluations. The prominence of security in the present study suggests that users interpret positive social media experiences as signals of organizational competence, reliability, and trustworthiness. These perceptions ultimately contribute to a stronger sense of security regarding the bank and its services (Gutman, 1982, 1997).

The identification of trust as another critical value further reinforces the importance of social media as a relationship-building mechanism. Trust represents a foundational element of successful banking relationships because customers must rely on financial institutions to protect their assets and personal information. Transparent communication, timely responsiveness, and accessible information can reduce uncertainty and strengthen perceptions of organizational credibility. These findings are highly consistent with recent research emphasizing the role of social media communications in fostering consumer–brand identification, trust formation, and positive electronic word-of-mouth behaviors within banking environments (Sharma, 2025). By enhancing trust, social media platforms contribute to the development of stronger and more sustainable customer relationships.

The significance of overall satisfaction as a value-level outcome also deserves attention. Unlike consequence-level satisfaction, which reflects immediate evaluations of platform performance, overall satisfaction represents a broader assessment of the customer's relationship with the bank. The Means–End Chain framework suggests that such higher-order evaluations emerge from accumulated experiences and perceived benefits. The present findings support this proposition by demonstrating that positive consequences generated through social media interactions eventually contribute to enduring perceptions of value and relationship quality. Similar conclusions have been reported in studies examining the influence of utilitarian and hedonic value on customer loyalty and behavioral intentions within online environments (Ashraf et al., 2019; Chiu et al., 2014).

The study also contributes to the growing literature on utilitarian and psychological dimensions of social media value. Previous research has shown that users derive both functional benefits and emotional rewards from digital platforms. Functional benefits include efficiency, convenience, and information accessibility, whereas psychological benefits encompass enjoyment, social connectedness, and reassurance. The present findings suggest that banking social media usage similarly generates both functional and psychological outcomes that ultimately shape user values. This observation aligns with evidence indicating that utilitarian and hedonic values jointly influence user engagement and continuance behavior across social media and electronic commerce contexts (Ashraf et al., 2019; Chiu et al., 2014; Song et al., 2018).

From a theoretical perspective, the findings extend existing knowledge by applying the Means–End Chain framework to the context of banking social media usage. While previous studies have predominantly relied on technology acceptance models and continuance intention frameworks, the present research demonstrates the usefulness of examining hierarchical cognitive structures linking attributes, consequences, and values. This approach provides a more comprehensive understanding of how users interpret social media experiences and why certain platform characteristics become meaningful. The findings therefore complement existing technology adoption theories by highlighting the value creation mechanisms underlying social media engagement (Gutman, 1997; Venkatesh et al., 2016).

Overall, the results indicate that social media platforms create value for banking customers through a sequential process in which specific platform attributes generate desirable consequences that subsequently lead to the formation of important personal values. The confirmation of this hierarchical chain supports the explanatory power of Means–End Chain theory and provides practical insights into how banks can enhance customer experiences through effective social media management. By focusing on accessibility, transparency, responsiveness, and information quality, banks can create positive user outcomes that ultimately strengthen security perceptions, trust, and overall satisfaction among customers (Putra et al., 2025; Sharma, 2025; Yaghoubpour et al., 2024).

Despite its contributions, this study has several limitations. First, the research was conducted exclusively among users of Bank Sepah in Tehran Province, which may limit the generalizability of the findings to customers of other banks or geographical regions. Second, the study relied on self-reported questionnaire data, making the results potentially susceptible to common method bias and social desirability effects. Third, the cross-sectional design prevented the examination of causal changes in user perceptions over time. Finally, although the Means–End Chain framework was successfully tested, additional contextual variables such as age, digital literacy, trust propensity, and prior online banking experience were not incorporated into the structural model.

Future studies may expand the scope of investigation by comparing customers from different banks, regions, or countries to explore potential cultural and organizational differences in the attribute–consequence–value hierarchy. Longitudinal research designs would provide a deeper understanding of how user perceptions evolve over time and how social media experiences influence long-term customer relationships. Researchers may also integrate additional constructs such as digital trust, perceived risk, customer engagement, and brand loyalty into the Means–End Chain framework. Furthermore, qualitative approaches such as laddering interviews could be employed to uncover deeper cognitive associations and value structures that may not be fully captured through standardized questionnaires.

Bank managers should prioritize the development of social media platforms that provide easy access to information, transparent communication, and timely responses to customer inquiries. Continuous updating of content and the provision of accurate information can strengthen users' confidence and improve their overall experiences. Banks should also invest in security-related communication strategies that reassure customers regarding the safety of digital interactions. Enhancing interactive features, providing personalized support, and integrating social media channels with broader digital banking services may further improve customer satisfaction and trust. By focusing on the hierarchical process through which attributes generate consequences and values, banking institutions can design more effective social media strategies that foster long-term customer loyalty and sustainable relationship development.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

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Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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