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RECEIVED 15 October 2025

REVISED 21 January 2026

ACCEPTED 26 January 2026

PUBLISHED 13 February 2026

CITATION

Alhanatleh H, Al-Htibat A,
Alrifae AAM and Alnajdawi SMA (2026)
Establishing customers' value
co-creation of using metaverse
commerce: applying Servicescape
models.
Front. Commun. 11:1726110.
doi: 10.3389/fcomm.2026.1726110

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Establishing customers' value co-creation of using metaverse commerce: applying Servicescape models

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Introduction: The revolution of metaverse commerce has been increased, enabling businesses and customers to obtain significant benefits such as offering immersive experiences and interactive. However, literature on how metaverse commerce influence customers' behaviors is still limited, especially in terms of value co-creation. The main objective of this study is to demonstrate the role of Servicescape Models in fostering customers' trust and, as a result, improving value co-creation mechanisms.

Methods: Quantitatively, the present study offers a novel insight through proposing a new conceptual framework based on Servicescape Models and value co-creation theory to explore customers' behaviors towards using metaverse commerce phenomenon. Based on electronic questionnaire design, the data collected from 563 customers in Jordan who use metaverse commerce platforms.

Results: Using structural equation modeling approaches, the results of this study uncover that Servicescape Models (aesthetic appeal, layout and functionality, and financial security) support a considerable role in shaping customers' trust of using metaverse commerce. The results of this research also discover that customers' trust plays a crucial role in establishing value co-creation in metaverse commerce settings.

Discussion: Notably, these interactions between the model constructs confirm a respectable effect on how customers act during their usage of metaverse commerce. The value of this study is established in its worthy implications and recommendations that assist virtual businesses and metaverse technologies developers and designers to enhance metaverse commerce based on customers' requirements and future trends.

KEYWORDS

customers' behaviors, customers' trust, metaverse commerce, Servicescape models, value co-creation

1 Introduction

Studies in existing literature indicate that the investment in metaverse technologies is broadening at a formidable rate, fueled by the tremendous growth in the number of businesses around this digital world (Alshurideh et al., 2023). The concept of metaverse commerce has acquired notable attention, considering its capabilities to easily engage customers in the virtual world. Metaverse commerce creates a well-designed virtual platform that allows customers to perform their practices and transactions across various virtual environments (Rosenberg, 2022). Metaverse commerce has considerable power to significantly influence customers'

knowledge, behavior, and future orientations through supporting face-to-face interactions in virtual settings (Kim, 2021).

The continued growth in the digital technology environment is driving academicians, scholars, and businesses to concentrate on customers' behavior, tendencies, needs, and concerns in the digital environment (Fung, 2023; Yuan et al., 2025). Platforms in the Metaverse unite electronic commerce environments with entertainment sequences and social networking options for consumer use. Metaverse commerce platforms have expanded steadily in Jordan since the population mainly comprises young people interested in digital interactions (Demir et al., 2023). Understanding metaverse consumer behaviors requires priority status because Jordan is merging digital transformation initiatives with its e-commerce sector development. New business possibilities emerge from the metaverse with consumer benefits, but user connection depends mostly on visual quality, platform design styles, and economic protection features (Jung et al., 2024). Virtual commerce platforms receive customer perception from their elements, which determines customer system confidence ratings.

Jordanian consumers find metaverse commerce increasingly engaging because its aesthetic appeal comes from distinct design elements, visually appealing interfaces, and entertaining value (Alshuryfeen et al., 2024; Alrifae, 2025; Arya et al., 2024). The navigability of virtual space and user interaction depend equally on functional design elements, layout features such as user-friendly interfaces and well-organized information systems, and customization and interactivity features (Alshurideh et al., 2024). Financial security considers as primary factor to enhance trust of Jordanian consumers for conducting metaverse transactions because they need clear transaction security proof and straightforward payment methods to feel confident in this market (Alobaydi et al., 2025; Yaseen et al., 2024). Consumer interaction strength and brand value co-creation depend on their trust in metaverse commerce because this element links different aspects of influencer factors together. User understanding combined with virtual experience determines trust diversity across Jordanian digital platforms, and thus, businesses must work on security enhancements and user experience improvements to build consumer trust.

Despite the growth of literature on metaverse technologies, recent studies focus mostly on the technology adoption, user intention, and immersive experiences, frequently using the traditional models that include the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and UTAUT (e.g., Dwivedi et al., 2022; Firmansyah and Umar, 2023). Although these studies have given meaningful results regarding user acceptance, they offer a small amount of description on how the design features of metaverse commerce platforms can be converted into more profound results, including customer trust and value co-creation. Additionally, the prior studies have rarely combined the Servicescape Models with the value-co-creation theory in the framework of a single empirical study of metaverse commerce. Current literature is likely to focus on aesthetic elements of platforms, interactivity, or engagement individually without clarifying the mechanism by which these attributes combine to facilitate the value co-creation based on trust (Buhalis et al., 2022; Gleim et al., 2024). Moreover, there is a lack of empirical confirmation in the new economies, especially in the Middle East settings. To fill in these gaps, the existing study hypothesizes and empirically verifies the combination of Servicescape dimensions, i.e., aesthetic appeal, layout and functionality, financial security, and customer trust and value co-creation in the metaverse commerce setting. Through this strategy, the study provides a new

theoretical synthesis and provides empirical data in Jordan, thus expanding the literature on metaverse commerce and customer value co-creation. Responding to the identified research gap, the present study embarks on answering the following research questions (RQ):

RQ1: How do Servicescape dimensions (aesthetic appeal, layout and functionality, and financial security) influence customer trust in metaverse commerce platforms?

RQ2: What is the role of customer trust in facilitating value co-creation in metaverse commerce?

RQ3: How does the integration of Servicescape Models and value co-creation theory enhance understanding of customer behavior in metaverse commerce contexts?

2 Literature review

2.1 Metaverse commerce platforms

The metaverse concept refers to applying various information technologies and theories, such as virtual reality, augmented reality, gaming technology, and digital entertainment, to generate a fully immersive digital platform. The integration between metaverse technologies offers end-users the ability to virtually interact and communicate in real time within a digital environment. Critical components of the metaverse involve augmented reality, virtual reality, blockchain platforms, avatars, three dimensions (3D), and the science of artificial intelligence (Lee and Kim, 2022). As a contemporary phenomenon, the revolution of metaverse technology provides an alternative approach to interact with businesses in virtual space, supporting business processes and users' immersive knowledge and experiences. Therefore, implementing a metaverse platform presents a new definition of businesses, offering opportunities to adopt new strategies, theories, and business processes (Mkedder and Das, 2024).

The metaverse phenomenon has been deployed among various types of businesses, which considerably affects different settings such as marketing and electronic commerce, bolstering a flexibility to change traditional tactics and strategies, support innovative and creative alternatives, and immersive digital experiences (Bauerová and Halaška, 2025). In this context, the field of electronic commerce has gradually shifted its practices into metaverse technologies, as this movement assists in fostering business sales and improving consumer engagement through applying metaverse applications such as 3D and avatar platforms (Bauerová and Halaška, 2025). As avatar technology is a creative solution, it has been acknowledged that designing a customized virtual shopping experience suggests being a primary resource for electronic commerce success, aiming at avoiding a crucial gap between shoppers and the physical location of retailers (Hwang et al., 2025). Through this, the avatar can reinforce consumers' engagement and trust by enabling consumers to add various components of interactivity to the virtual shopping practices, enhancing consumers' retention and support decisions to iterate purchases. In addition, it has been noted that 3D platforms enhance digital immersive experiences and practices that provide consumers with the capacity to explore their products based on different angles and views, size control, and

rotation features, permitting consumers to interact and communicate in real time (Korbel et al., 2024).

It has been discovered that metaverse commerce applications offer a virtual environment as a critical channel to exchange values such as non-fungible tokens (Kim, 2021). Additionally, it has been noted that the merging of electronic commerce, virtual and augmented reality, and extended reality boosts mobility and accessibility that can be communicated from any device, anywhere, and at any desired time (Jafar et al., 2025). Therefore, customers can easily interact with features of virtual commerce, creating a novel immersive environment by applying game theory for marketing and shopping purposes. Yang and Sui (2024) discovered that implementing metaverse technology in logistic operations and inventory management within electronic commerce settings provides a significant business model, leading to improved economic benefits and enhancing the effectiveness and efficiency of logistic operations and inventory management. In businesses adopting metaverse commerce websites or mobile applications such as NIKELAND, Sivathanu et al. (2025) discovered that customers' shopping practices enhance through improving various features of the metaverse commerce platform, such as innovativeness, optimism, and readiness dimensions, as businesses are encouraged to effectively develop metaverse strategies to motivate customers' shopping intentions. Moreover, adopting metaverse commerce enhances consumers' knowledge and digital immersive experiences, as consumers' behavior of using metaverse platforms is significantly influenced by different determinants such as interactivity, enjoyment, imagination, and immersive sense, as conducted in the setting of fashion apparel shopping (Pillai et al., 2023). Shao et al. (2025) confirmed that realizing metaverse commerce capabilities within the Tmall setting can add considerable value to customers through enhancing immersive digital experiences and motivating purchase decisions.

In this cutting-edge technological environment, various initiatives in information technology industries bring innovative alternatives to restructure and redesign the domain of electronic commerce platforms based on metaverse technology, aiming to facilitate businesses and consumers' practices. As a digital strategic vision within luxury fashion contexts, Heo (2025) identified how Gucci Town firm has invested in metaverse commerce technologies to promote its products in virtual markets through employing the gaming platform Roblox. Practically, partnerships should be prioritized as a strategic resource to create an effective metaverse commerce environment and develop skills to explore and navigate Gucci Town's metaverse commerce. In this vein, Lamni et al. (2024) have developed a new business model that incorporates blockchain technology, metaverse algorithms, and electronic commerce, creating an application of virtual electronic commerce platform. This creative application employs a smart contract mechanism in blockchain for generating consumers' digital assets and a non-fungible token approach for supply ceiling. Therefore, such an initiative opens big opportunities for modern businesses and users to communicate and interact with metaverse applications in electronic commerce, as this application infrastructure fosters concepts of trust, engagement, and value in the metaverse.

Metaverse has been deployed among contemporary businesses to capture value and boost their strategic position in the marketplace (Boakye and Sarpong, 2025). In this term, Nike organization has aligned its business strategy to incorporate metaverse technology as branding and innovation tools through Nikeland to add value for business functions, provide virtual products and services, and foster

immersive digital experiences and knowledge. Nikeland was deployed relying on the Roblox virtual environment, enabling younger customers to effectively interact and engage with Nike products (Nike, Inc., 2026). In the same vein, Gucci has adopted the metaverse platform, launching Gucci Garden on the Roblox environment using various virtual technologies such as avatars and NFT-based Gucci fashion products (Gucci, 2026). Metaverse commerce of Gucci strategically targets to enhance brand experience, engagement, and virtual innovation tools, leading to engage customers to virtually navigate fashion products and improve their immersive journey. Therefore, the movement of Gucci into metaverse technologies reflects its strategic vision on attracting younger consumers and strengthening the Gucci brand value based on storytelling mechanisms. As decentralized virtual environments, Cryptovoxels and the Sandbox allow customers to virtually interact and communicate, enabling them to buy land, generate immersive virtual environments, and engage in commercial practices (Cryptovoxels, 2026; The Sandbox, 2026). In a land ownership setting, virtual world and metaverse commerce technologies have been adopted to facilitate promoting land and conduct buying processes that contribute to economic growth and establish mutual value for both business and customers (Somnium Space, 2026). Furthermore, Balenciaga's business has developed its digital strategy to adopt metaverse technologies through creating robust associations with gaming technology and virtual environments, targeting to enhance its market position based on virtual culture and immersive experiences and knowledge (Balenciaga, 2026). The Balenciaga brand has deployed a virtual fashion platform as a tool to attract younger customers through launching a virtual clothing environment based on virtual video games, achieving a strong positive influence through storytelling about the Balenciaga brand. Responding to a high competition rate in the marketplace, the Ralph Lauren company has employed metaverse platforms as a strategic key, focusing on enhancing virtual lifestyle and brand experience. Ralph Lauren made a strong partnership with virtual platforms like Roblox to create a virtual environment space to earn audiences' attention, leading to improved navigation processes and purchase virtual clothes for their avatars (Ralph Lauren, 2026). As a result, the digital strategy of Ralph Lauren catalyzes customers' engagement and enhances virtual immersive experiences. Warby Parker's business has expanded its strategy through integrating augmented reality tools, enabling customers to preview products before purchase decisions that increase customer interaction and engagement with metaverse platforms and support more immersive virtual practices (Warby Parker, 2026). However, investing in metaverse platforms has taken considerable interest in other e-commerce disciplines that aim to improve revenue, enhance brand engagement, and provide highly valuable customer insights. Table 1 provides additional brands that have deployed metaverse commerce platforms in different disciplines to serve their strategic goals and objectives.

2.2 Servicescape models overview

As multi-dimensions model, the critical objective of Servicescape models is to inclusively elucidate consumers' behavior within technology services such as metaverse commerce services based on multi-layer constructs, as first introduced by Bitner (1992). To achieve desired consumer behavioral responses, Servicescape models have

TABLE 1 Use cases of metaverse commerce adoption.

Business	Metaverse	Disciplines of use	Strategic goals
Adidas (2026)	Platform 1: The Sandbox. Platform 2: NTF.	Pathway 1: Innovation. Pathway 2: purchase method.	Fostering the rate of selling, creating Adidas's brand community, and establishing a novel revenue model.
Hyundai Motor Company (2026)	Platform1: Roblox	Pathway 1: Innovation and creativity.	Enhancing the integration and communication of future technologies.
BMW Group (2026)	Platform1: Virtual rooms	Pathway 1: immersive virtual customer experience and knowledge.	Offering a visualization show before conducting a purchase.
Forever 21 (2026)	Platform1: Roblox	Pathway 1: purchase method	Offering a virtual platform and enhancing brand forever 21 loyalty.
Puma (2026)	Platform1: Virtual wearable. Platform1: NTF.	Pathway 1: Innovation. Pathway 2: Advertising.	Improving competitive edge and expanding in the marketplace.

been re-conceptualized and re-adapted in various settings based on aesthetic appeal, layout, functionality, and financial security. Servicescape models have been researched in e-commerce settings through various disciplines. Li et al. (2024) designed and adapted the dimensions of the Servicescape model to empirically evaluate consumers' intention to shop among an internet mall platform. In the same vein, Tankovic and Benazic (2018) employed Servicescape models to estimate the value of e-shopping and consumers' loyalty. Additionally, it has been discovered that aesthetic appeal, layout, functionality, and financial security considerably affect consumers' behavior of using fashion applications, achieving that enhances consumers' immersive skills and experiences, improves consumers' repurchase decision, and reinforces electronic word of mouth, leading to generate a robust relationship between consumers and fashion retailers (Patel et al., 2024).

Among virtual settings such as metaverse technologies, Servicescape models have been utilized to digitally establish an immersive engagement and create a user-friendly design that targets fostering consumers' experiences and skills through creating aesthetic user-interfaces, implementing an adequate information infrastructure, and developing functional interactives of virtual environments (Hashem et al., 2025; Lee and Jeong, 2012). Moreover, Servicescape models can contribute to generating positive and significant immersive experiences, attitudes, and behaviors of consumers through enhancing the interactive components of virtual technologies (Kandampully et al., 2023; Rabah et al., 2024; Shamim et al., 2024). Furthermore, adopting Servicescape models generates the quality of a virtual platform through accomplishing various vital features such as prioritizing consumers' ease of use, considering responsiveness, and strengthening feedback techniques (Pratminingsih et al., 2025). In addition, Servicescape models assist in promoting customized and personalized consumers' knowledge and ensuring consumers' support (Issac Sam et al., 2025). By doing these critical phases, organizations have significant opportunities to design and develop a virtual setting, such as a metaverse, driving customers' behavior, loyalty, value, and business goals. As a result, Servicescape models contribute to businesses and customers. In terms of business benefits, the Servicescape model assists in enhancing growth and sustainability, improving the efficiency and effectiveness of operational functions, obtaining competitive advantages, and reinforcing business strategic goals and objectives. In terms of customers' benefits, Servicescape models assist in fostering immersive knowledge and experiences, bolstering satisfaction, trust, and loyalty.

2.3 Value co-creation farmwork

Customer value has been evaluated and developed in various typologies, perspectives, and approaches. Zeithaml (1988) evaluated consumer value as the estimation of tangible and intangible benefits and costs. Moreover, Morris and Holbrook (1996) developed a comprehensive framework to measure consumer value based on multiple value features, including excellence, status, efficiency, aesthetics, ethics, esteem, play, and spirituality. Furthermore, Gallarza et al. (2017) revisited Holbrook's framework to empirically measure consumers' value based on eight multidimensional scales to reach satisfaction and loyalty. Leroi-Werelds (2019) updated and developed Holbrook's model, considering the modern changes and advancements in the academic field and business practices, involving the rapid growth of digital technologies. Leroi-Werelds (2019) categorized value into two primary value typologies which are positive value types (efficiency, excellence, status, self-esteem, enjoyment, aesthetics, escapism, personalization, control, novelty, relational benefits, social benefits, ecological benefits, and societal benefits), and negative value types (price, time, effort, privacy risk, security risk, performance risk, financial risk, physical risk, ecological costs, and societal costs).

Value in metaverse environments has been researched in different approaches. Neuhofer et al. (2015) indicated that consumers value processes generated through achieving customization and personalization of immersive experiences as the merging boundaries in the metaverse environments enable the creation of their customization and personalization features, adding benefits and values for consumers. In addition to that, privacy and security concerns are stress factors in the development processes of consumer value as the metaverse capabilities provide sufficient data about consumers, leading to generate value through enhancing privacy and security concerns (Dwivedi et al., 2023; Kumar et al., 2021).

It has been indicated that the quality of metaverse implementation reinforces the business performance benefits. Bekos et al. (2025) have developed a framework to identify factors influencing the effective incorporation of the metaverse into businesses for obtaining competitive advantages, leading to the creation of value for businesses and consumers. Additionally, Singh et al. (2025) have measured consumers value in a retail setting based on Leroi-Werelds' value framework, which discovered that consumers' engagement and trust in the metaverse platform are affected by positive and negative value typologies, contributing to consumers behavior of using metaverse commerce. More recently, Kumar et al.

(2025) have applied the consumption values theory based on mix-method (qualitative and quantitative) to evaluate the effect of consumption values on consumers' purchase intention in the setting of the metaverse non-fungible tokens, discovering that the consumption values of altruistic, experiential, emotional, and symbolic provide a considerable influence on metaverse non-fungible tokens purchase intention.

As a critical business strategy, service-dominant logic theory has established a value co-creation realm that identifies consumers as a primary resource to produce their future trends, goods, and services (Tommasetti et al., 2017). As a primary key for businesses to reinforce their marketplace position in this immersive virtual environment, value co-creation theory has unlocked the complexity of the relationship between consumers and businesses, enabling them to boost business processes, evolve products, or enhance services (Aboalghanam et al., 2024; Carranza et al., 2021; Merz et al., 2018; Ramadan and Ramadan, 2025). In the metaverse setting, the relevant literature demonstrates the critical advantages and benefits of adopting the metaverse in businesses through the discipline of value co-creation theory (Dwivedi et al., 2022; Gleim et al., 2024). This interplay indicates that the metaverse technologies support eloquent chances for consumers and businesses to enhance value co-creation (Buhalis et al., 2022) and value co-creation (Bao et al., 2024; Kumar and Shankar, 2024). In the e-retail entrepreneurs' setting, the interactions between factors of Diffusion of Innovation Theory and the Technology Readiness Acceptance Model have the ability to establish value and advantages through investing in metaverse commerce technologies (Singh and Gupta, 2025).

Consequently, a metaverse technology has been deployed in multiple fields of business so that businesses and consumers can collaborate, interact, and communicate in a new immersive and virtual setting, using avatars, blockchain, 3D, and various other technologies. It has been asserted that there is a considerable consensus in existing literature to investigate consumers' perspectives on using the metaverse commerce context. Although the adoption of metaverse and immersiveness, as well as consumer engagement, have been investigated previously, a theoretical synthesis explaining how platform design features bring about trust-based value co-creation processes is still missing. The previous academic literature has mostly focused on adoption intentions or experiential consequences and has not clearly explained how Servicescape dimensions interactively develop customer trust and resultant value-co-creation behaviors. This paper fills the aforementioned gap through conceptualizing customer trust as a key mediating variable between Servicescape dimensions and value co-creation to provide an equally holistic and explanatory viewpoint than previous descriptive paradigms.

2.4 Developed research model

2.4.1 Aesthetic appeal on trust

Aesthetic appeal is defined as the surrounding conditions of virtual commerce, and to the extent to which users explain the Servicescape of virtual commerce as catchy. Bitner (1992) conceptualizes the dimensions of aesthetic appeal, consisting of originality of design, visual appeal, and entertainment value, that are considered vital in fostering consumers' beliefs and expectations. It has been confirmed that aesthetic appeal and its evaluations substantially affect consumers' trust and behavior (Leung et al.,

2023; Tran et al., 2012). The existing literature examines aesthetic appeal in different disciplines that trust stands as a middle variable to drive purchase intentions, behavioral intentions, loyalty, and word of mouth (Harris and Goode, 2010; Kumar Roy et al., 2014).

Originality of design constitutes a robust dimension of aesthetic appeal that positively influences trust, resulting in fostering consumers' responses and behaviors. In this context, features of images in virtual commerce, such as size, presentation way, number, and tincture, are decisive assumptions (Li et al., 2024; ALSokkar et al., 2024). In the same fashion, visual appeal is a considerable dimension of aesthetic appeal. Using appropriate backgrounds and colors enhances consumers' experiences, leading to improved trust (Lin et al., 2024). Moreover, entertainment value is a critical dimension of aesthetic appeal employed to enhance customers' trust through applying various interactive features such as game theory, leading to generate more engaging and enjoyable environment, especially in virtual commerce settings such as avatar (Bhambri and Kautish, 2024). Based on that, this study re-conceptualizes the following assumption:

H1: Evaluations of a metaverse commerce visual appeal positively affected consumers' trust in the metaverse commerce.

2.4.2 Layout and functionality on trust

The layout and functionality of metaverse commerce indicate the need to prepare and allocate physical resources in a virtual service setting. Organizing, arranging, structuring, and adapting are considered primary resources to constitute layout metaverse commerce, while functionality of metaverse commerce is constituted through employing these resources to assist in facilitating service objectives and goals (Bitner, 1992). Four dimensions shape the layout and functionality of metaverse commerce, which are usability, relevance of information, customization, and interactivity. First, usability of metaverse commerce is considered a primary key in generating consumers' trust as smoothness and seamless consumers' immersive experiences enhance their confidence (Bitner, 1992; Goyal et al., 2025). Usability of metaverse commerce features such as easy navigation, meaningful product information, payment methods processes, and quick response of customers services confirm consumers' trust and loyalty (Ozkan and Sekerkaya, 2025). Furthermore, the relevance of metaverse commerce information is another critical dimension, describing how consumers' trust can be established based on multiple features of information and details such as timely, accurate, and obvious (Harris and Goode, 2010; Donnelly, 2001). In addition, customization of metaverse commerce is suggested as a vital determinant that significantly affects offering a high degree of consumers' trust, aiming at providing customized and personalized experiences that are consistent with customers' needs and preferences, as ensured in relevant literature (Pragha et al., 2025). It has been documented that generating immersive customized experiences supports great opportunities to establish trustworthy relationships between businesses and consumers, especially in metaverse commerce platforms (Fiore et al., 2005; Takahashi et al., 2017). Finally, interactivity of metaverse commerce is suggested as an essential dimension, enabling customers to interact and communicate with metaverse platforms through various features such as real-time feedback, artificial intelligence chats, product reviews, and a Question-and-Answer platform (Cowan and Ketron, 2019). Through confirming these features, the interactivity of

metaverse commerce ensures two primary characteristics, which are transparency and assurance, resulting in fostering consumers' trust and behavior (Barreda-Ángeles and Hartmann, 2022; Basu et al., 2025). Based on that, this study re-conceptualizes the following assumption:

H2: Evaluations of a metaverse commerce layout and functionality are positively affected by consumers' trust in the metaverse commerce.

2.4.3 Financial security on trust

Financial security of metaverse commerce refers to the degree to which customers' knowledge regarding policies, instructions, and procedures ensures that metaverse commerce is safe and secure for conducting payments (Alhanatleh and Khaddam, 2025; Montoya-Weiss et al., 2003; Lahiri et al., 2025). Financial security has the ability to highly establish customers' trust in metaverse commerce through accomplishing two significant dimensions, which are perceived security and ease of payment. Perceived security is considered a critical component in determining trust in metaverse commerce, as protecting the personal and financial information of customers increases their confidence. Recent validations in existing literature have confirmed that highly secure payment information systems, perspicuous privacy policies and procedures, and tangible trust affirm a high quality of information and data safety (Hernández-Tamurejo et al., 2025; Karapatakis, 2025). Similarly, ease of payment describes the simplified and smooth approaches to perform transactions within metaverse commerce, as incorporating metaverse commerce with various virtual applications, such as a virtual wallet, can influence consumers' behaviors and trust (Abumalloh et al., 2025). Therefore, financial security of metaverse commerce fosters consumers' trust through reducing cyberattacks, fraud, and misuse. Based on that, this study re-conceptualizes the following assumption:

H3: Evaluations of metaverse commerce security positively affected consumers' trust in metaverse commerce.

2.4.4 Trust in value co-creation

Trust construct has an actual role in connecting the Servicescape model constructs and value co-creation. First, trust is a considerable outcome of Servicescape models that assist in evaluating customers' behavior and attitude toward adopting or using information technology services (Fan et al., 2025). However, trust has been modeled as a significant determinant of electronic commerce disciplines, particularly in value co-creation (Daabseh and Aljarah, 2021; Fauzi et al., 2025). Additionally, trust has been allocated as a primary resource to enhance service dynamics and online exchange, as analysts, designers, and developers produce information technologies to generate trust (Assiouras et al., 2025; Alghizzawi et al., 2024). Therefore, even though the adoption of metaverse commerce is influenced by a wide range of variables, trust is suggested to be a fundamental determinant for attitude, behavior, and value co-creation. Confirmations on the role of trust in relevant literature for generating value have been uncovered that fostering customers' trust assists in raising their confidence in a virtual setting through ensuring security of information and transactions, providing useful content, and facilitating interaction and communication with virtual environments (Alhanatleh et al., 2024a; Alhanatleh et al., 2024b; Saha et al., 2025). Consequently, customers are more likely to interact, engage,

and communicate in a virtual landscape such as metaverse commerce, leading to the generation of significant value through retaining customers, supporting economic growth, accomplishing responsible social connections, and affirming metaverse commerce sustainability. In this study, it has been argued that trust plays a critical role in fostering value co-creation within metaverse commerce, leading to offering advantages for businesses and consumers. Based on that, this study re-conceptualizes the following assumption:

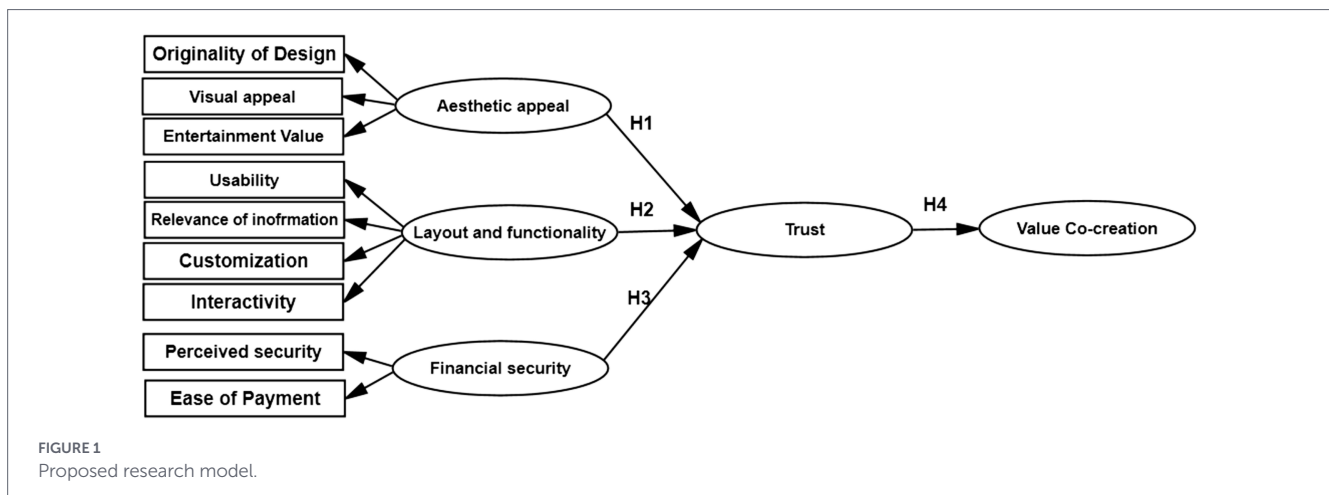
H4: Trust in a metaverse commerce is positively affected by consumers' value co-creation.

The incorporation of metaverse-based technological characteristics into electronic commerce provides a big opportunity for enhancing consumers' engagement and business processes (Setiawan and Anthony, 2022). As recently documented in existing literature (Firmansyah and Umar, 2023), there are scarce studies on the critical factors influencing consumers' trust and value of adopting metaverse commerce based on various disciplines, especially quantitative investigations. Addressing the issues of accessibility and security within metaverse commerce platforms has considerable potential to reinforce consumers' decisions, trust, and overall experiences. Accordingly, theorizing consumers' value co-creation in the metaverse is a required process that opens considerable potential to foster customer behavior and overall business performance in virtual settings (Singh et al., 2025). Figure 1 presents the developed conceptual framework regarding value co-creation using metaverse commerce.

3 Research methodology

This research confirmed its objectives and goals based on a quantitative approach through conducting a comprehensive review of the relevant literature on the model of Servicescape, including minute theoretical and empirical confirmations. In the setting of conceptualization, this study established insights from reliable and quality literature on the fields of Servicescape, metaverse commerce, and value co-creation theory (Lee and Kim, 2022; Tommasetti et al., 2017; Bitner, 1992). Furthermore, modeling the research hypotheses critically conceptualized to integrate Servicescape dimensions with the value co-creation realm in the setting of metaverse commerce. Moreover, the quantitative approach was employed to carefully determine the population and sample size, method of accessing the sample, instrument, data collection design, and data analysis stages of this study. In addition to reporting, visualizing, and interpreting the results of this research accomplished to confirm a good understanding of the developed model. Finally, offering research implications and limitations of this study suggested enabling scholars to conduct further work, leading to extending the body of the literature, especially in the metaverse commerce context.

The instrument of this research was a multi-scale questionnaire design targeting customers with appropriate experience and knowledge of using any platforms of metaverse commerce, such as Nike, Gucci, Adidas, Roblox, Somnium Space, and Warby Parker. The items' constructs of the proposed model were well-justified from reliable literature and scientific databases. First, constructs of the Servicescape model were adapted and justified from (Kim, 2024; Tankovic and Benazic, 2018; Harris and Goode, 2010; Patel et al., 2024). The evaluations of aesthetic appeal were adapted based on visual appeal with



four items, originality of design with four items, and entertainment value with five items. The evaluations of layout and functionality were adapted and justified based on usability with seven items, relevance of information with four items, customization with four items, and interactivity with four items. The evaluations of financial security were adapted and justified based on ease of payment with five items and perceived security with four items. Furthermore, the items of the trust construct were adapted and justified based on eight items from (Harris and Goode, 2010). In terms of the last construct, the items of value co-creation were adapted and justified based on seven items from (Khaddam and Alhanatleh, 2024). The items of the suggested model were entailed five-point Likert assessments, scaling from 1 represented lowest response value to 5 represented highest response value.

The target population of this research was customers in Jordan. To determine the required sample size, the convenience sampling method was approached, as at least 385 consumers are sufficient to achieve the objectives of this study, as ensured by Morgan (1996). To ensure the selected sample will have a good understanding of the questionnaire, the last version of the questionnaire was translated into Arabic by asking four linguistic experts. The Arabic version was audited three times before holding a pilot study, resulting in the fact that the questionnaire items did not include language mistakes or errors. To affirm the reliability and validity of the questionnaire, a pilot study was conducted by asking (Carranza et al., 2021) consumers who had previous experiences with metaverse commerce. The last version of the questionnaire was electronically distributed to the chosen sample using the Google Drive platform by asking 800 consumers to fill out the questionnaire items, emphasizing that they initially had experience and knowledge of metaverse commerce. This research retrieved 648 consumers' responses. After eliminating imperfect responses for various statistical reasons, just 563 qualified responses were used for further evaluations and analysis. Hair et al. (2019) ensured that 563 responses were eligible for generating reliable and reasonable outcomes regarding the proposed model of this study.

To statistically confirm the objectives of this research, Sarstedt et al. (2020) emphasized that SPSS and AMOS version 22 packages were harnessed to generate authoritative results of the proposed model. Hair et al. (2021) ensured that producing reliable outcomes requires following scientific statistical approaches. Initially, all constructs' items should be subjected to confirmatory factor analysis evaluations to measure model fit adequacy. Next, Confirmatory factor analysis evaluations are used to estimate the reliability and validity of the model

construct. Finally, structural equation modeling evaluations are used to obtain the developed hypotheses of this study.

4 Research result

By executing confirmatory factor analysis techniques, the features of factor loading and covariance correlation were adjusted based on their threshold values, which are ≥ 0.5 and ≤ 0.85 , respectively, as affirmed by Raza and Awang (2021). Consequently, the fit adequacy regarding the suggested model of this research was evaluated based on cut-off values of indicis measurements as confirmed by Talwar et al. (2019). Table 2 shows outcomes of the model fit indices and their acceptable values, which strongly affirm the adequacy indicator regarding the proposed model of this study.

To move forward in the analysis stages, Awang (2014) asserted that estimating the validity and reliability regarding the proposed model constructs is an essential process that statistically evaluates through confirming convergent validity, construct validity, and discriminant validity measurements. To evaluate convergent validity measurements of the proposed model in this study, Hermida (2015) suggested two critical tests, which are factor loading of all items' constructs and Average Variance extracted (AVE) of each construct, as their acceptable values are ≥ 0.50 , estimated through confirmatory factor analysis processes. Similarly, to evaluate construct validity measurements of the proposed model in this study, Brown (2015) proposed two primary tests which are composite reliability (CR) and Cronbach Alpha (α) for each construct as their acceptable values are ≥ 0.70 . Based on these measurements, Table 3 summarizes the verifications of the convergent validity and construct validity measurements regarding the suggested model of this study as statistically confirmed. In addition, Appendix Table A1 shows items' constructs and their factor loading.

Finally, Dijkstra and Henseler (2015) suggested a calculated formula to evaluate discriminant validity measurements of the proposed model in this study, as follows:

$$\text{Computed } \sqrt{\text{AVEs}} \text{ of all proposed model constructs} \\ > \text{computed } |\text{AVEs}| \text{ values of inside - correlations.}$$

TABLE 2 The findings report of model fit indicators.

Indicators	Results	Decision	Accepted value
RMSEA	0.067	Ideal	RMSEA < 0.08.
GFI	0.857	Accepted	GFI > 0.85 → accepted, or GFI > 0.90 → ideal.
AGFI	0.851	Accepted	AGFI, CFI, CFI, TLI, NFI > 0.85 → accepted, Or
CFI	0.927	Ideal	AGFI, CFI, CFI, TLI, NFI > 0.90 → ideal.
TLI	0.915	Ideal	
NFI	0.891	Accepted	
ChiSq /df	2.772	Ideal	Chi-Square/df < 5 → accepted, or Chi-Square/df < 3 → ideal.

Table 4 provides complete outcomes of discriminant validity measurements based on the proposed equation, robustly and significantly verifying the discriminant validity concerns of the proposed model in this research. As a result, the reliability and validity evaluations of the proposed model in this study are accomplished, providing strong evidence to evaluate the outcomes of the hypotheses.

By executing structural equation model tests, the proposed model of this study was implemented based on an imputed data set generated from the original data. By running a structural equation model test, Table 5 and Figure 2 show the summarized findings' hypotheses of the proposed model and squared multiple correlations (R^2) used to explore the variance effect of the external variable on the internal variable. Therefore, the (R^2) result of trust is close to 0.647, exploring that aesthetic appeal, layout, and functionality, and financial security indicate 64.7% of the variance in trust of adopting metaverse commerce among Jordanian customers. The (R^2) result of value co-creation is approximately 0.541, confirming that trust supports 54.1% of the variance effect on value co-creation of adopting metaverse commerce among Jordanian customers.

First, the findings of this study confirmed that evaluations of Aesthetic appeal affirm a positive and significant influence on trust within Jordanian customers of using metaverse commerce ($\beta = 0.299^{***}$), confirming that the developed H1 is strongly supported. Next, the findings of this study affirmed that evaluations of layout and functionality support a significant influence on trust within Jordanian customers of using metaverse commerce ($\beta = -0.242^*$), ensuring that the developed H2 is statistically supported. Additionally, the findings of this study indicate that evaluations of financial security substantially support a positive and significant influence on trust within Jordanian customers of using metaverse commerce ($\beta = -0.390^{***}$), emphasizing that the developed H3 is robustly supported. Finally, the findings of this study uncovered that trust has a positive and significant influence on value co-creation among Jordanian customers of using metaverse commerce ($\beta = -0.133^{**}$), emphasizing that the developed H4 is supported.

5 Discussion

This research analyses the transmission of customers into metaverse commerce beginning from Servicescape models, passing through customers' trust, resulting in customers' value co-creation perception. Establishing new interconnections and associations in metaverse commerce, this article endeavors to critically identify how the outcome of Servicescape models (trust) influences value

co-creation processes. It is substantial for the metaverse commerce businesses to accurately comprehend and realize which construct of the Servicescape models is the primary predictor for value co-creation. Therefore, this study employs multi-dimensional measurement of Servicescape as suggested by Harris and Goode (2010) for measuring the influence on customers' trust and, as a result, their value co-creation.

The findings of this study uncovered that the critical Servicescape model for customers' trust is financial security based on perceived security and ease of payment, which are similar to those ensured in prior empirical studies (Abumalloh et al., 2025). These findings suggest that metaverse commerce businesses may align their information security strategy to support security concerns regarding consumers' information and transactions. Similar to that affirmed in prior empirical studies (Lin et al., 2024; Bhambri and Kautish, 2024), aesthetic appeal is considered a critical illustrative factor to enhance customers' trust in using metaverse commerce platforms, as the advancements of visual appeal, originality of design, and entertainment value provide significant opportunities to reinforce customers' behaviors, especially trust. In addition to, the finding of this study discovered that layout and functionality confirms a notable influence on customers' trust, as since usability, relevance of information, customization, and interactivity features continuously meet customers' needs and expectations of metaverse commerce technology, then trust will be improved as previously confirm by Barreda-Ángeles and Hartmann (2022) and Basu et al. (2025). The findings of this study confirmed that customers' trust provides a positive and significant influence on customers' value co-creation based on multi-dimensional constructs, such as our model, as this is Similar to that affirmed in prior empirical studies (Alhanatleh et al., 2024a; b; Saha et al., 2025). As a result, customers value the co-creation of using metaverse commerce established through the positive and significant interactions of the proposed model factors, providing customers with immersive virtual experiences and competencies, supporting novel alternatives to develop products, fostering their services, and supporting loyalty.

6 Theoretical implications

This study contributes to existing literature from various perspectives. First, connecting Servicescape models with value co-creation theory considers a novel theoretical insight, especially within the metaverse commerce setting. The findings of this research revealed that the models of Servicescape (aesthetic appeal, layout and functionality, and financial security) ensure significant interactions to

TABLE 3 The convergent validity and construct measurements of the proposed model.

Constructs	Number of Items	Convergent validity		Construct reliability	
		Loaded Factor (From ...To...)	AVE	A	CR
Perceived security	4-items	0.793–0.809	0.634	0.866	0.874
Visual appeal	4-items	0.762–0.822	0.609	0.860	0.862
Originality of design	4-items	0.743–0.830	0.612	0.610	0.863
Entertainment value	5-items	0.631–0.834	0.564	0.863	0.865
Usability	7-items	0.628–0.838	0.584	0.903	0.907
Customization	4-items	0.756–0.853	0.645	0.872	0.879
Relevance of information	4-items	0.803–0.914	0.757	0.921	0.926
Interactivity	4-items	0.723–0.768	0.558	0.830	0.835
Value co-creation	7-items	0.539–0.815	0.521	0.878	0.882
Trust	8-items	0.708–0.806	0.582	0.908	0.917
Ease of payment	5-items	0.721–0.855	0.613	0.879	0.887

The accepted thresholds of Factor loading ≥ 0.50 , AVE ≥ 0.50 , $\alpha \geq 0.70$, and CR ≥ 0.70 .

TABLE 4 Outcomes of the discriminant validity measurements.

Model's constructs	1	2	3	4	5	6	7	8	9	10	11
Perceived security	0.796										
Visual appeal	0.773	0.781									
Originality of design	0.444	0.448	0.782								
Entertainment value	0.557	0.518	0.735	0.751							
Usability	0.488	0.409	0.703	0.709	0.764						
Customization	0.120	0.088	0.060	-0.018	0.073	0.803					
Relevance of information	0.406	0.375	0.630	0.623	0.751	0.094	0.870				
Interactivity	0.518	0.627	0.639	0.620	0.757	0.165	0.673	0.747			
Value co-creation	0.135	0.075	0.057	0.012	0.027	0.026	0.051	0.092	0.722		
Trust	0.640	0.550	0.506	0.546	0.528	0.151	0.470	0.678	0.127	0.763	
Ease of Payment	0.433	0.471	0.528	0.481	0.571	0.126	0.419	0.671	0.103	0.750	0.783

Diagonal values represent the square root of AVE. Discriminant validity is established when the square root of AVE for each construct exceeds its correlations with other constructs (Fornell and Larcker, 1981).

establish value co-creation among consumers of metaverse commerce, as the results of (R^2) of endogenous factors uncover the strongest relationships and interactions between factors of the proposed model, affirming the main objectives of this study. Since prior investigations have focused on how Servicescape dimensions stimulate metaverse technology from different disciplines, the current research aims to provide novel evidence in Servicescape models for establishing customers' value co-creation using metaverse commerce. Through this argument, various dimensions of the Servicescape model need to be advanced, managed, and developed in order to establish customers' trust, which is expected to generate value co-creation processes of using metaverse commerce. The findings of this study indicate that layout and functionality are weak factors of Servicescape models that affect customers' trust, suggesting that customers of metaverse commerce ranked their trust based on advancements in usability, customization, relevance of information, and interactivity dimensions. The development of these features in metaverse commerce has a great chance to reinforce customers' trust,

resulting in generating value and providing immersive virtual experiences, skills, and competencies for customers.

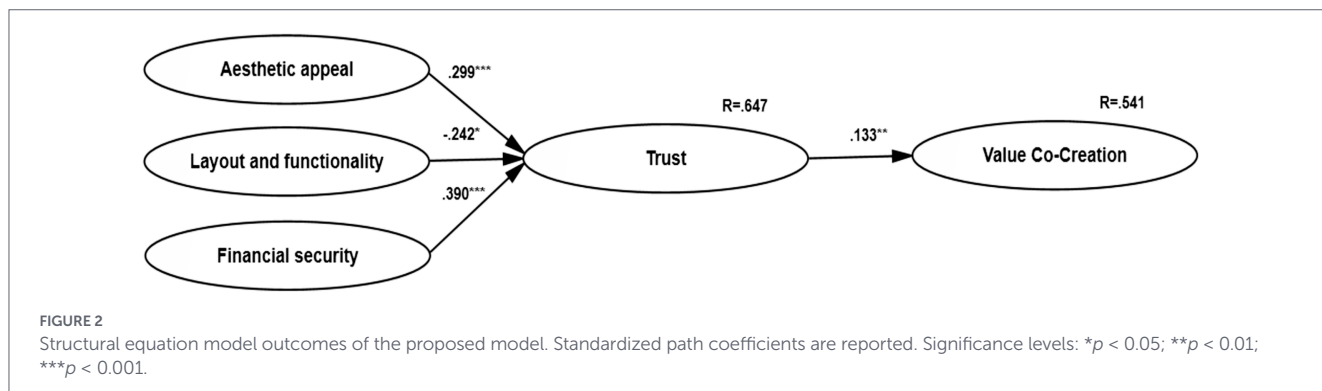
7 Practical implications for metaverse commerce businesses

The current research offers considerable practical implications for businesses of metaverse commerce. As a critical implication for managements of metaverse commerce, the outcomes of this study assert that effective Servicescape models can reinforce the operational efficiency of metaverse commerce technology through restructuring processes and reducing costs. In addition, the results from customers of metaverse commerce in Jordan settings uncovered that virtual Servicescape design assists in developing customers' experiences and knowledge through creating an immersive metaverse commerce environment, meeting customers' requirements and highest expectations.

TABLE 5 Synopsis results of the developed hypotheses.

Developed hypotheses	β	S. E.	C. R.	P
Aesthetic appeal \rightarrow Customers' trust	0.299	0.051	5.826	***
Layout and functionality \rightarrow Customers' trust.	-0.242	0.612	-2.032	0.042
Financial security \rightarrow Customers' trust	0.390	0.080	7.339	***
Customers' trust \rightarrow Customers' value co-creation	0.133	0.043	3.081	0.002

Significant *p*-value levels are * < 0.05, ** < 0.01, *** < 0.001.



This study provides empirical evidence in business growth that using metaverse commerce environments offers immersive skills and experiences for customers, resulting in increasing business sales, maximizing business profit, and fostering business market share. In addition, the outcomes uncovered that aligning Servicescape models with the main strategy, goals, and objectives of business support a considerable opportunity to strategically position in the competitive markets. As a strategic key, value co-creation theory plays a considerable role in strengthening business competitive advantages. The outcome of this study affirmed that value co-creation based on Servicescape models has the ability to distinguish businesses using metaverse commerce from their competitors through creating unparalleled, immersive, and engaged metaverse platforms for customers, resulting in gaining competitive advantages. As a considerable value for metaverse businesses, the findings of this study also indicated that applying metaverse Servicescape models assists in establishing virtual brand loyalty by fostering customers' virtual brand image and bolstering metaverse businesses' reputation.

8 Managerial implications: metaverse commerce use cases

Besides the study implications on overall management, the research findings contained in this paper can be further elaborated by a wider analysis of the current use of metaverse commerce applications. Metaverse commerce platforms can be more broadly categorized into two: the ones that are more focused on digital assets and the ones that are more retail-oriented immersive commerce. Roblox, Somnium Space, Cryptovoxels, and The Sandbox are platforms of digital assets that provide immersive experiences, giving customers a chance to purchase digital assets, interact with brands, and socialize online. In these platforms, aesthetics and interactivity come out as critical factors of trust, hence creating behavior associated with the

co-creation of values, including feedback, co-design, and community input. Nike, Gucci, Adidas, Balenciaga, and Ralph Lauren are global retail brands that have created virtual worlds in which a consumer can obtain digital products, which they can use as an avatar; in other cases, these experiences are associated with the purchase of real goods. In this regard, monetary assurance and system functionality represent the indispensable tools of trust development, which will permit the customer to be involved in value co-creation processes.

9 Limitations and future recommendations

This study offers significant limitations and future trends. First, the specific sample size and geographical place lead to difficulty in generalizing the outcomes of this study. This proposes that future studies may expand the sample size and apply a cross-sectional approach from various countries to obtain reliable outcomes. Moreover, future efforts may focus on exploring the mediation effect of trust between Servicescape models and value co-creation, expecting to add more insights. As widely researched on electronic commerce setting, future studies may add satisfaction along with trust as outcomes of Servicescape models, expecting to provide a novel understanding of how value co-creation is established among customers. Furthermore, customers' behavior is a science that is difficult to predict due to a huge number of effects. This proposes that future studies may concentrate on long-term and time series methodologies to offer sufficient understanding regarding customers' behaviors and tendencies for accomplishing value co-creation in metaverse commerce environments. Though the current study can use the key constructs of the Servicescape theory and value co-creation, future studies can make a lucrative usage of proven technology-adoption models, including the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and UTAUT2. Specifically, future studies can address how

external factors (e.g., perceived quality of a platform), facilitating factors (e.g., technological infrastructure), and personal characteristics (e.g., age, technological familiarity, and previous experience with metaverse platforms) inform the attitudes and intentions toward metaverse commerce. Furthermore, the evaluations of familiarity of the respondents with the metaverse platforms as advertising platforms instead of the purely transactional ones can also be seen as affected by the nature of familiarity, meaning that the results can be seen as questionable. Based on this, longitudinal and comparative research are proposed to cover such issues.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

Ethics statement

Ethical approval was not required for the study involving humans in accordance with the local legislation and institutional requirements. Written informed consent to participate in this study was not required from the participants or the participants' legal guardians/next of kin in accordance with the national legislation and the institutional requirements.

Author contributions

HA: Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Resources, Software, Validation, Writing – original draft, Writing – review & editing. AA-H: Data curation, Funding acquisition, Methodology, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. AA: Conceptualization, Data curation, Investigation, Methodology, Project administration, Validation, Visualization,

Writing – original draft, Writing – review & editing. SA: Conceptualization, Investigation, Methodology, Resources, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

Funding

The author(s) declared that financial support was not received for this work and/or its publication.

Conflict of interest

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author(s) declared that Generative AI was not used in the creation of this manuscript.

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Appendix

TABLE A1 Constructs items.

Constructs	Items	Loaded Factor
Perceived security	Metaverse commerce incorporates effective security measures.	0.793
	The security protocols of Metaverse commerce appear robust.	0.794
	I harbor no security apprehensions when using Metaverse commerce.	0.788
	In general, Metaverse commerce demonstrates a strong commitment to security.	0.809
Visual appeal	Metaverse commerce exhibits a visually pleasing design.	0.780
	I find the appearance of Metaverse commerce appealing.	0.822
	Metaverse commerce possesses an attractive visual layout.	0.757
	The manner in which Metaverse commerce presents its features is visually appealing.	0.762
Originality of design	Metaverse commerce is characterized by freshness and originality.	0.759
	Metaverse commerce demonstrates innovation and creativity.	0.830
	Engaging with Metaverse commerce feels adventurous.	0.743
	Metaverse commerce is advanced in its design and features.	0.794
Entertainment value	I engage with Metaverse commerce primarily for my own enjoyment.	0.705
	I find Metaverse commerce highly entertaining.	0.834
	I take pleasure in using Metaverse commerce for its intrinsic value, not solely because I acquired it.	0.779
	Metaverse commerce not only aids in my tasks but also provides entertainment.	0.631
	Metaverse commerce's enthusiasm is infectious and uplifts my experience.	0.789
Usability	The functions within Metaverse commerce are straightforward to navigate.	0.775
	Metaverse commerce is designed with user-friendliness in mind.	0.800
	In general, I find Metaverse commerce easily usable for my tasks.	0.768
	Metaverse commerce clearly presents links and destinations.	0.760
	Metaverse commerce provides convenient methods for moving between related functions.	0.838
	Navigating through Metaverse commerce feels intuitively logical.	0.762
	Metaverse commerce includes navigation aids.	0.628
Customization	The services provided by ChatGPT are frequently tailored to my preferences.	0.853
	I perceive Metaverse commerce as being crafted with my needs in mind.	0.815
	Metaverse commerce treats me as an individual user.	0.786
	I have the option to customize ChatGPT according to my preferences if I desire.	0.756
Relevance of information	Each feature of Metaverse commerce clearly communicates what one can anticipate or accomplish.	0.865
	Visual information and data regarding topics are readily accessible with Metaverse commerce.	0.914
	There is an abundance of pertinent information available through Metaverse commerce.	0.895
	All pertinent information is readily accessible through Metaverse commerce.	0.803
Interactivity	I perceive Metaverse commerce as dynamic.	0.768
	I experience a high level of engagement with Metaverse commerce.	0.723
	Metaverse commerce provides diverse perspectives on information	0.751
	Metaverse commerce includes effective search tools to help me locate and accomplish my desires.	0.745
Value co-creation	I give suggestions to metaverse commerce on how to improving its product offerings.	0.815
	I am always participated in improving the services provided by metaverse commerce.	0.814
	I would say positive things about metaverse commerce to others.	0.539
	When I receive a good service, I will let metaverse commerce know.	0.716
	When I have a new idea on how to improve service, I will let metaverse commerce know.	0.773
	When I experience a problem, I will let metaverse commerce know.	0.671
	I would carefully observe the rules and policies of metaverse commerce.	0.685

(Continued)

TABLE A1 (Continued)

Constructs	Items	Loaded Factor
Trust	Metaverse commerce is interested in more than just selling me goods and making a profit.	0.758
	There are no limits to how far Metaverse commerce will go to solve a service problem I may have.	0.790
	Metaverse commerce is genuinely committed to my satisfaction.	0.751
	Most of what Metaverse commerce says about its products is not true.	0.763
	Some claims about its service are exaggerated.	0.754
	If Metaverse commerce makes a claim or promise about its product, it is probably true.	0.806
	I feel I know what to expect from Metaverse commerce.	0.708
	Overall, I feel that I can trust on Metaverse commerce.	0.767
Ease of payment	Metaverse commerce has efficient payment procedures.	0.721
	Payment procedures is quick in Metaverse commerce.	0.792
	The payment facilities are easy to use in Metaverse commerce.	0.855
	Paying for goods is straightforward in Metaverse commerce.	0.768
	Paying for goods involves entering a lot of details in Metaverse commerce.	0.772