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Trust in the Sharing Economy: An Improvement in Terms of Customer Intention

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Abstract: This study examines to explore the trust criteria in sharing economy from the customers' intention perspective. This study proposes using information quality, transaction safety, brand reputation, brand trust, continuous intention to use and economic feasibility. This study consolidates the attributes of sharing economy and extends the information ranging from customer trust to improvement from customer intention perspective in sharing economy dependent on both the Trust building model (TBM) and Theory of Reasoned Action. The objectives of this study are as follows: (1) to develop a valid set of attributes from a customer intention perspective in sharing economy; (2) to arbitrate the interrelationships among the attributes under unreliability; and (3) to determine criteria for a practicable improvement.

This study uses the fuzzy decision-making trial and evaluation laboratory (FDEMATEL) to confirm attributes interrelationships and anticipate the attributes in cause-and-effect groups. This study uses the fuzzy DEMATEL method to accomplish progressively decisive and proper results.

The sharing economy has transformed business sections, concentrating on the ability to share what individuals have and to provide their administrations to other peoples who need them. Sharing economy is a rising pattern in the online business and has created immense social and financial benefits for customers, organizations and industries. Trust is considered to be a fundamental aspect of sharing economy platforms as it creates a bond between customers and service providers. However, sharing economy needs to realise a set of attributes for improvement from the customer intention perspective.

The result shows that brand reputation (A3) and information quality (A1) are the two important aspects that drive the continuous intention to use (A6) in sharing economy. Although brand trust (A4) is considered to be one of the affected attributes in the overall scenario. The top causal criteria were identified as providing benefits (C27), reasonable price (C26), secure electronic payment (C9), a good reputation (C10), and useful information (C2). These five are the important criteria that act as a strategic factor with strong connections to improvement from the customer intention perspective in sharing economy.

The presented attributes were collected from the literature that could lead to the dependence on the existing studies. The predetermined number of experts and customers were studied because of geological boundaries. Perhaps, future studies should expand the framework to a progressively far-reaching setting.

Keywords: Theory of Reasoned Action (TRA), Trust building model (TBM), Fuzzy DEMATEL (FDEMATEL

1. Introduction

The sharing economy has the potential to undermine innovation and pose a threat to traditional businesses. The sharing economy has transformed business sections, concentrating on the ability to share what individuals have and to provide their administrations to other peoples who need them (Xu 2020; Yang et al., 2019). The estimated size of the sharing economy in India in the next five years is expected to 19.25 billion U.S dollars (E&Y India). It is difficult to implement sharing economy in India because trust between the customers utilizing the services and service providers is not high (Govindan et al., 2020). Sharing economy is a rising pattern in the online business and has created immense social and financial benefits for customers, organizations and industries (Geissinger et al., 2019). The sharing economy has transformed the pattern of usage from purchasing tosharing resources, by allowing proficient and feasible usage of underutilized resources (Munoz and Cohen, 2017). However, trust in sharing economy platforms is challenging to framebecause of the absence of interaction between business integers and customers (Kong et al., 2019; Cheung and To, 2017). To develop trust among the customers, sharing economy platform encourage customers to participate with strangers (Richardson, 2015). Within the sharing economy platform, trust is moderately low because of the absence of customary brand showcasing procedure (Cheng et al., 2019). Hence, trust is considered to be a fundamental aspectof sharing economy platforms as it creates a bond betweencustomers and service providers (Ert et al., 2016).

Still, sharing economy needs to realise a set of attributes for improvement from the customer intention perspective and the prosperity of society depends on a strong economic foundation (Nghia, 2021). Prior studies have emphasized customers perceptions and behaviour in the sharing economy platforms and discussed that trust is a vital factor facilitating customerswillingness to engage in the online platform (Hajli, Wang, Tajvidi, &Hajli, 2017; Hsu, Chen, & Kumar, 2018; Yang et al., 2019). Kim (2019) reported that customer engages in the sharing economy platform not only for monetary advantages (e.g., diminished expense and saving), yet in addition for social advantages. To accomplish monetary and social advantages, customers assess each other through reviews that are an indication of what develop customers trust in sharing economy platforms (Zervas et al., 2017; Ert et al., 2016). Tussyadiah and Pesonen (2018) confirmed that trust has been the most cited barriers to sharing economy platforms, which includes the basic distrust among customers and concerns for privacy. Hsu et al. (2018) argued that trust is a fundamental factor encouraging customers to take part in sharing economy platforms.However, the purpose of this study is to investigate the trust criteria in the sharing economy from the perspective of the customers' intentions (Oyo Rooms and Uber).This study incorporatesqualities of the sharing economyand expands the information ranging from trust to customer intention perspective in sharing economy dependent on the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980) and Trust building model (TBM) (McKnight et al.,2002) gives a foundation to clarifying the connection between customer frames of mind, intentions, and practices.This study identifies trust as a requirement for customers to participate in sharing economy platforms, resulting in an improvement in customer intention.

In general, it is difficult to determine recognitions and decisions from quantitative information. Linguistic ambiguity brings about contrasts in implications and perception of linguistic preferencesbecause linguistic preferences are considered to reflectrecognitions. Moreover, this study is based on the qualitative assessment of the improvement from a customer intention perspective in sharing economy. However, in the decision-making process, linguistic references have been neglected, which fails to address the interrelationships among the proposed attributes. Though, the decision-makerassessment is based on linguistic preferences that involve a level of ambiguity in nature(Tseng et al., 2018). This study adopts the fuzzy decision-making trial and evaluation laboratory (FDEMATEL) to confirm attributes interrelationshipsand anticipate the attributesin cause and effect groups. The qualitative information is converted into crisp values for discernible assessment, and the causal association among attributes are analysed(Wu et al., 2015; Tseng et al., 2017). Also, a various levelled structure is developed to incorporate the uncertain association among the aspects and

criteria. Hence, this study uses the fuzzy DEMATEL method to accomplish progressively decisive and proper results.

Thus, the objectives of this study are as per the following: (1) to develop a valid set of attributes from customer intention perspective in sharing economy; (2) to arbitrate the interrelationships among the attributes under unreliability; and (3) to determine criteria for a practicable improvement.

The contributions of this study are threefold: (1) analysing and organising a set of attributes through qualitative information; (2) exhibiting a set of attributes to benefit professionals by improving the decision-making process;and (3) presenting a causal interrelated model to create hypothetical bits of knowledge and providing criteria for improvement from customer intention perspective in sharing economy.This study is based on the overview of customers and expertsassociated with the sharing economy industry.

This research employs six insightful attributes: information quality, transaction security, brand reputation, brand trust, continuous intention to use, and economic feasibility. This characteristic contributes significantly to the advancement of the sharing economy. The remainder of this study is divided into six sections. Section 2 provides context for the sharing economy, as well as the evaluation, proposed method, and estimation. Section 3 includes a method description as well as a data collection of customer and expert perspectives. Section 4 presents the study's findings. Section 5 discusses the study's ramifications. The final section discusses the findings, limitations, and future research.

2. Literature Review

Theoretical Framework

This study consolidates the attributes of sharing economy and extends the information ranging from customer trust to improvement from customer intention perspective in sharing economy dependent on both the Trust building model (TBM) (McKnight et al.,2002) and Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1980). However, different theories in sociology were utilized to comprehend customers behaviour under the sharing economy platforms. Among these theories, the Trust building model (TBM) and Theory of Reasoned Action (TRA) have been generally used to interpret the decision-making process of customers in sharing economy platforms (French et al., 2017, Chung et al., 2015). Despite the absence of comprehensive theory clarifying customer practices in terms of the trust, Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1980) provides a background for explaining the relationship between customer perspective and their behaviorsin sharing economy.

Sharing Economy and Trust

The sharing economy has developed remarkably since 2010 with the fast advancement of significant players, for example, Uber (automobile sector), Oyo Rooms (accommodation sector) through disintermediation, overabundance limit usage, and efficiency improvement (PwC, 2015). Xu (2020) found that in the sharing economy platform, customers and service providers become familiar and trust each other by disclosing their information and communicating online and face-to-face. Alonso-Almeida (2018) claimed that the relationship between the customers and service providers has been changed in the sharing economy platforms and also the commercialistic lifestyle. Tussyadiah and Pesonen (2018) found that the sharing economy has witnessed rapid expansion, trust has been indicated as one of the most critical obstructions. Ye et al. (2019) argued that the sharing economy cannot completely depend on conventional risk reduction strategies; this requires a more profound comprehension of trust in the context of customers future participation intention. The trust between customers and service providers is an imperative facilitator of collaborative interactions (Hawlitschek et al., 2018).

Improvement from customer intention perspective

In sharing economy, delivering customers good assistance that leads to increase satisfaction has become a tremendous challenge for service providers (Fan et al. 2020). However, an improvement from customers perspective has been perceived as a basic factor of accomplishment and a source of competition for leverage for sharing economy, including automobile (Uber) and hospitality (Oyo Rooms) in India. Zach et al. (2018) found that the customers see sharing economy platforms as advantageous, satisfying, and cost-effective.Dacko (2017) emphasized that customers perceive sharing economy platforms should improve their service experience and reduces decision uncertainty.Hamari et al. (2015) found that satisfaction, sustainability and financial advantages influence customer intention to engage in a sharing economy platform.

Information Quality

Information quality refers to *"the degree to which a customer sees the information provided by a service provider as accurate, sufficient, consistent, valuable and complete"* (Yi et al., 2013). Nadeem et al. (2020) argued that with regards to sharing economy platforms, customers expect better informational support from service providers and complete information for making informed and better decisions. Customers perceive information as accurate, useful, reliable, sufficient, and easyto use which will lead to customers for transaction decision-making in sharing economy platforms (Kang and Namkung, 2019; Kong et al., 2019). Tseng and Wang (2016) argued that better information quality act as a critical factor that encourages customers to participate in sharing economy platforms. Yang et al. (2019) identified that because of the useful information customers tend to focus on the particular products and services that intensify the perceived value or reduce the perceived risk. The precise, accurate and useful information expands customers trust in the service providers, which is essential for customers to develop purchase intention and behaviour (Ert et al., 2016).

Transaction safety

Customers endeavour to ensure the security and protectionof their information accumulated in both online and offline exchange platforms (Kong et al., 2019). Whenever customers do not feel comfortable in their utilization of sharing economy platform because of transaction safety issues, then they might not want to continue participating with the sharing economy platforms (Nadeem et al., 2020). Yang et al. (2019) identified that sharing economy platforms striving to provide safe platforms to protect customers from personal information exposure or transactions related risk. Davidson et al. (2018) claimed that customers are experiencing a new type of utilization regarding products and services without the burden of owning resources and with the point of reducing exchange costs and transaction-related concerns. Featherman and Hajli (2016) argued that online platforms transmit more risk in security issues than conventional business platforms.

Brand Reputation

Brand reputation refers to "*the attitude of customers that the brand is good and reliable*" (Afzal et al., 2010). Brand reputation plays an important role in diminishing customers vulnerability and mistrust in sharing economy platforms (Vercic and Coric, 2018; Yang et al., 2019). Han, Nguyen and Lee, (2015) argued that creating and maintaining a brand reputation is a prerequisite in the present competing business situation. Hsu et al. (2014) found that a decisive brand reputation may lessen risk and develop trust based on the supporting information provided by customers who had earlier experienced with the service providers. Weisstein et al. (2019) identified in circumstances where products or service quality is not promptly obvious, customers perceived uncertainty is likely to increase. A firm reputation is boosted through positive activities, and an appropriate administration of its assets and capacities, as opposed to by expanding publicizing or compelling corporate correspondence (Hoejmose, Roehrich, &Grosvold, 2014).

Brand Trust

Brand trust refers to "*the eagerness of the customers to depend on the ability of the brand to comply with its certain function*" regardless of the uncertainty or risk related to that brand (Becerra and Badrinarayanan, 2013). Basili and Rossi (2020) stated that trust is also hard to sustain in sharing economy platforms, however sharing economy platform effectively try to develop and maintain brand trust among their customers. Kang and Namkung (2019) found that when service providers are honest, responsible, considerate, and generous that leads to customers trust in sharing economy platforms. Yi et al. (2018) claimed that the trust-attachment relationship between customers and the service providers is prone to know detailed information about the organization.Mittendorf (2016) argued that remarkably trust between the customers and service providers is interconnected and transferable, where customers trust can largely increase and finally decides the customers' participations.

Continuous intention to use

Lee(2010) defined continuous intention to use as " *the extent to customers attitude toward usage subsequently resulting in their behavioural intention to use regularly*".Davidson et al., (2018) claimed that customers engage in sharing economy platforms can also have various levels of association, contingent upon their way of life and culture.Hawlitschek et al., (2018) argued that the desire for more prominent exertion, low levels of trust, and higher risk concerns may discourage customers from utilizing sharing economy platforms. Hellwig et al., (2015) found that customers engage in sharing economy platforms for different reasons- individuals want to collaborate and share products andservices with others that leads to promote such characteristicsastransparency and openness.Thesecond reason is customers want to experience extraordinary products and services, and they value these experiencesand the last customers perceive that sharing economy platforms helps them to save money.

Economic Feasibility

Economic feasibility refers to "*a customer expectation that sharing economy platforms provides cost convincing correspondence and information exchange opportunities*" (Kim and Park, 2013). Economic feasibility components like attractive and valuable products/services, reasonable prices, benefits are frequently viewed as a key aspect influencing customers behaviours to participate in sharing economy platforms (Kim, 2019; Alonso-Almedia et al., 2020). Basselier et al., (2018) noted that sharing economy platforms is an alternative source of income or assets for both customers and service providers. For instance, trusting an unreliable service provider in sharing economy platforms, causes customers physical damage, as well as monetary loss (terHuurne et al., 2017).

Proposed Method

Prior studies have discussed that trust is a vital factor facilitating customers willingness to engage in sharing economy platforms (Hajli, Wang, Tajvidi, &Hajli, 2017; Hsu, Chen & Kumar, 2018; Yang et al., 2019). Consequently, this study depends on the fuzzy DEMATEL way to deal with the survey of experts and customers linguistic references with regards to improvement from customer intention perspective in sharing economy. This method not just permits specialists to bargain their judgment dependent on information and experience yet additionally streamlines an unpredictable issue by tending to the innate vulnerability of a review strategy (Lee et al., 2018; Tseng et al., 2018). Specifically, fuzzy set theory has been applied to measure

the qualitative approach deriving from human linguistic decisions with vulnerability, while the FDEMATEL approach intends to evaluate the structure of causal interrelationships among attributes (Wu and Lee, 2007).

Proposed measures

As shown in Table 1, this study proposes a set of attributes comprised of six aspects and 27 criteria, including information quality (A1), transaction safety (A2), brand reputation (A3), brand trust (A4), continuous intention to use (A5), and economic feasibility (A6).

The information quality (A1) plays a significant role in developing trust between customers and service providers (Kim and Park, 2013; Kong et al., 2019). Although sharing economy platforms makes simpler strategies for exchanging and sharing information between customers and the service providers. So that service providers should hold up high accessibility to excellent information to satisfy customers requests (Yang et al., 2019; Kang and Namkung, 2019). In sharing economy platform, the firm should provide accurate information (C1) that helps customers for the decision-making process (Kim and Park, 2013). Service provider presents a lot of information to their customers but only useful information (C2) and Reliable information (C3) allow customers to decide or reach a conclusion related to their booking (Kong et al., 2019). Sufficient information (C4) is essential for customers to gather enough information to form a reasonable conclusion (Kang and Namkung, 2019). Ease of use (C6) reflects that the customers feel easy to access or use on the system when they are dealing with products or services (Yang et al., 2019; Kang and Namkung, 2019).

Animmense level of transactionsafety (A2) can improve customersperspective on sharing economy platforms. The firm implements security measures (C6) to protect its customers while dealing with sharing economy platforms (Nadeem et al., 2020). The service providers verify online users' identity (C7) for security purposes (Kim and Park, 2013; Kong et al., 2019). The firm ensures transaction-related information (C8) is protected from being accidentally altered or destroyed during transmission over the internet (Kong et al., 2019). Customers feel secure about the electronic payment (C9) system on the website (Kim and Park, 2013; Nadeem et al., 2020).

Brand reputation (A3) plays a vital role in fostering customers trust in sharing economy as the reputation of a firm regularly shared among customers. Goodreputation (C10) contemplated as forerunners of perceptual basedtrust in sharing economy. A good reputation of a firm can assist customers with making a decision and furthermore impacts customers to participate afterwards (Vercic and Coric, 2018). The firm is known to be concerned about its customers (C11) (Hsu et al., 2014). The firm had a reputation for being honest (C12) toward its customers (Kang and Namkung, 2019; Nadeem et al., 2020). Favourable for customers (C13) describes that service providers are customers focus, benevolent and supportive (Yang et al., 2019). Trustworthy (C14) refers that customer could rely on the honesty or truth of the firm (Ye et al., 2019; Sharma and Klein, 2020).

Brand trust (A4) is the most important determinant of business success in today's competitive market. In sharing economy platforms, the service providers keep their promises and commitments (C15) to satisfy customers demands and request (Yang et al., 2019). The sharing economy platforms provide a robust and safe environment (C16) to share personal information so that customers feel comfortable while using it (Akrout and Nagy, 2018). The customers feel assured that the legal and technological structure (C17) adequately protects from problems on the website (Kong et al., 2019). Customer interest (C18) reflects that in sharing economy platforms the service providers keep customers best interest in mind (Zhu et al., 2019). The customers could trust the service or product quality (C19) of the firm (Alonso-Almedia, 2020).

Customer satisfaction and trust have been demonstrated to be a fundamental factor encouraging customers for continuous intention to use (A5) sharing economy platforms in the future (Kong et al., 2019). Customers intend to continue using (C20) firm products and service in the future (Yi et al., 2020; Curina et al., 2020). Strongly recommend others (C21) describes that customer are likely to recommend their friends, family

members and acquaintance about firm products or services (Li and Shang, 2019; Sultan et al., 2020). Customers would provide information with others (C22) related to products or services (Kong et al., 2019). Encourage others (C23) reflects that customer are likely to encourage their friends, family members, and colleagues to consider the firm for services (Kim and Park, 2013; Kong et al., 2019). Customers would share positive things with others (C24) about firm products and services (Kim and Park, 2013; Kong et al., 2019).
Economic feasibility (A6) refers to a customer expectation that sharing economy platforms provides cost compelling correspondence and information interchange contingency. Regarding economic feasibility, three criteria have been chosen. The firm provides customers with attractive and valuable products/services (C25) (Alonso-Almedia et al., 2020; Gurau and Ranchhod, 2020). Reasonable prices (C26) describes that the firm offers products/services to their customers at economical and low-priced as compared to others (Kim and Park, 2013; Gurau and Ranchhod, 2020).The firm usually provides benefits (C27) to their customers beyond their expectation (Kim and Park, 2013; Alonso-Almedia et al., 2020).

Table 1. Proposed Aspects and Criteria

Aspects		Criteria	References
Information Quality (A1)	C1	Accurate Information	Kim &Park (2013); Kong et al. (2019); Yang et al. (2019); Kang and Namkung (2019).
	C2	Useful Information	
	C3	Reliable Information	
	C4	Sufficient Information	
	C5	Ease of Use	
Transaction safety (A2)	C6	Security measures	Kim & Park (2013); Hsu et al. (2014); Kong et al. (2019); Nadeem et al. (2020).
	C7	Verify onlineusers' identity	
	C8	Ensures transaction-related information	
	C9	Secure about electronic payment	
Brand Reputation (A3)	C10	Good reputation	Hsu et al. (2014); Vercic and Coric, (2018); Kang and Namkung (2019); Yang et al. (2019); Sharma and Klein (2020); Nadeem et al. (2020).
	C11	Concerned about customers	
	C12	Reputation for being honest	
	C13	Favourable for customers	
	C14	Trustworthy	
Brand Trust (A4)	C15	Keeps its promises and Commitments.	Akrout and Nagy (2018); Yang et al. (2019); Kong et al. (2019); Zhu et al. (2019); Alonso-Almedia et al. (2020).
	C16	Robust and safe	
	C17	Legal and technological structures	

	C18	Customer interest	
	C19	Service/product quality	
Continuous Intention to Use (A5)	C20	Continue using	Kim & Park (2013); Kong et al. (2019); Yi et al. (2020); Curina et al. (2020); Li and Shang, (2019); Sultan et al. (2020).
	C21	Strongly Recommend others	
	C22	Provide information with others	
	C23	Encourage other	
	C24	Positive things to others	
Economic feasibility (A6)	C25	Attractive and valuable products/service	Kim & Park (2013); Alonso-Almedia et al. (2020); Gurau and Ranchhod (202).
	C26	Reasonable prices	
	C27	Provide benefits	

3. Method

This section discusses the method used in this study to obtain the analytical results.

Fuzzy DEMATEL

This study conducted personal interviews with customers related to sharing economy. The fuzzy DEMATEL method employs the defuzzification procedure to convert qualitative information into fuzzy linguistic variables. The crisp values are transformed from fuzzy numbers using the defuzzification method based on the fuzzy set theory. The aspects and criteria are presented in Table 1, and the respondent evaluated the pairwise influence of aspects and the pairwise influence of criteria. From each respondent, a matrix of order 6X6 and 27X27 data is collected for the aspects and criteria, respectively. Hence, the FDEMATEL method analyzes composite and complicated interrelationships among the aspects and variables (Lin et al., 2018). This study involves eight analytical steps.

Analytical steps

The analytical steps used in FDEMATEL methodology are illustrated below:

In the first stage, this study incorporates sharing economy qualities and expands information ranging from trust to customer intention in the sharing economy. This study proposed 6 aspects and 27 criteria from prior studies that follow a questionnaire for linguistic evaluation to be assessed based on customers experiences and knowledge in sharing economy to ensure its reliability.
In the second stage, this study conducted online interviews with customers to examine and identify interrelationship among aspects and criteria for practical improvements in sharing economy.

1. The decision matrix considers that there are x attributes to be determined against y attributes. n is the number of decision makers; accordingly, the decision-maker vector is expressed by $\tilde{D}_n$ using linguistic preferences denoted as ($g\tilde{d}_L^n$, $g\tilde{d}_M^n$, $g\tilde{d}_U^n$).

(1)

$$\tilde{D}_n = \begin{bmatrix} \tilde{d}_{L1j}^{1y}, & \tilde{d}_{M1j}^{1y}, & \tilde{d}_{L1j}^{1y} \ldots \tilde{d}_{Li1}^{1y}, & \tilde{d}_{Mij}^{1y}, & \tilde{d}_{Lij}^{1y} \\ \vdots & & \ddots & \vdots & \\ \tilde{d}_{L1j}^{x1}, & \tilde{d}_{M1j}^{x1}, & \tilde{d}_{L1j}^{x1} \cdots \tilde{d}_{L1j}^{xy}, & \tilde{d}_{M1j}^{xy}, & \tilde{d}_{L1j}^{xy} \end{bmatrix}_{xy}, \quad n = 1, 2, \ldots, n$$

2. Later, fuzzy numbers are normalized. If a decision group contains n members, let $\tilde{d}_{ij}^n$ mean the fuzzy weight of the effects of the i[th] attribute on the j[th] attribute as determined by n decision makers.

$$D = (g\tilde{d}_{Lij}^n, g\tilde{d}_{Mij}^n, g\tilde{d}_{Lij}^n) = \left[(\tilde{d}_{Lij}^n - min\tilde{d}_{Lij}^n)/(max\tilde{d}_{Lij}^n - min\tilde{d}_{Lij}^n), (\tilde{d}_{Mij}^n - min\tilde{d}_{Mij}^n)/(max\tilde{d}_{Mij}^n - min\tilde{d}_{Mij}^n), (\tilde{d}_{Uij}^n - min\tilde{d}_{Uij}^n)/(max\tilde{d}_{Uij}^n - min\tilde{d}_{Uij}^n)\right] \quad (2)$$

Where is $(g\tilde{d}_{Lij}^n, g\tilde{d}_{Mij}^n, g\tilde{d}_{Uij}^n)$ expressed as a triangular fuzzy number with normalized values.

3. The left and right normalized values obtained by Eq (2), the total normalized crisp values using Eq (3), and crisp values used Eq (4) are then computed.

$$(D\tilde{d}_{LTij}^n, D\tilde{d}_{RTij}^n) = [g\tilde{d}_{Mij}^n /(1 + g\tilde{d}_{Mij}^n - g\tilde{d}_{Lij}^n), \quad g\tilde{d}_{Uij}^n /(1 + g\tilde{d}_{Uij}^n - g\tilde{d}_{Mij}^n) \quad (3)$$

$$D\tilde{d}_{ij}^n = \left[\frac{(D\tilde{d}_{LTij}^n (1 - /D\tilde{d}_{LTij}^n) + (D\tilde{d}_{RTij}^n)^2)}{(1 - D\tilde{d}_{LTij}^n + D\tilde{d}_{RTij}^n)}\right] \quad (4)$$

$$d\tilde{w}_{ij}^n = min\ g\tilde{d}_{Lij}^n + D\tilde{d}_{ij}^n\ (max\ g\tilde{d}_{Uij}^n - mingd_{Lij}^n) \quad (5)$$

4. An initial direct relation matrix (IDRM) is described to combine the subjective judgments of n evaluators; the synthetic value is acquired using Eq (5). In IDRM, w_{ij} represents the degree to which criterion i affects criterion j.

(6)

$$w_{ij}^n = (\tilde{w}_{ij}^1 + \tilde{w}_{ij}^2 + \tilde{w}_{ij}^3 \ldots . + \tilde{w}_{ij}^n)/n$$

5. The IDRM is standardized to develop the normalized direct relationship matrix (NDM).

NDM = s*IDRM (7)

Where s = max $(\sum_{j=1}^{n} w_{ij}^{n})$ for all i from 1 to n.

6. After acquiring the total relation matrix, NDM is utilized to compute the total interrelationship matrix Y.

$TM = NDM\ (I\text{-}NDM)^{-1}$ (8)

Where I denote an identity matrix.

7. A causal diagram is later produced: the sum of rows is represented by vector D, and vector R denotes the sum of columns. The horizontal axis (D+R) is "prominence" and denotes the importance. The vertical axis (D-R) is "relation" and represents the causal attributes. When the value of (D-R) is negative, the aspect or criterion is within the effect group, and when the value of (D-R) is positive, it is within the cause group.

$$D = \sum_{j=1}^{n} NDM_{ij}, \quad \text{for all j from 1 to n} \qquad (9)$$

$$R = \sum_{j=1}^{n} NDM_{ij}, \quad \text{for all i from 1 to n}$$

4. Results and Findings

The results and findings are discussed in this section.

1. For FDEMATEL evaluation, this study proposed twenty-seven criteria were used to formulate the FDEMATEL questionnaire. The expert'sevaluations of the interrelationships amongst the aspects and criteria are obtained on linguistic scales ranging from "very high influence (VH)" to "no influence (VL)" as shown in Table 2.

Table 2. Triangular fuzzy numbers (TFNs) linguistic scale.

Linguistic (Influence)	Fuzzy Numbers
Very High	(0.7, 0.9, 1.0)
High	(0.5, 0.7, 0.9)
Medium	(0.3, 0.5, 0.7)
Low	(0.1, 0.3, 0.5)
Very Low	(0.0, 0.1, 0.3)

2. Convert linguistic preferences into TFNs. For illustration, TFNs are normalized into crisp values using Equation (1)-(3) as presented from expert one response. Subsequently, we aggregated the subjective judgment for *n* respondents and calculated synthetic value using Equation (4).The IDRM is standardized using Equation (5), and the total relation matrix obtained using Equation (6).

3. The x-axis (D + R) represents "prominence," and the y-axis (D - R) represents "relation". The cause-effect diagram of aspects is drawn based on (D + R) and (D - R) using Equations (7) and (8) as

presented in Table 3. Subsequently, this analytical step is repetitive that presents a cause-effect diagram of criteria as presented in Table 4.

Table 3. Causal-effect interrelationship among aspects

	D	R	D+R	D-R
A1	10.645	9.388	20.033	1.257
A2	10.056	10.284	20.340	(0.229)
A3	11.267	10.689	21.956	0.578
A4	10.620	11.051	21.671	(0.432)
A5	9.355	10.715	20.070	(1.361)
A6	8.857	8.670	17.527	0.186

Table 4. Causal-effect interrelationship among criteria

	D	R	D+R	D-R
C1	5.013	5.469	10.482	(0.457)
C2	5.178	5.142	10.320	0.037
C3	5.037	4.920	9.958	0.117
C4	4.582	4.946	9.528	(0.364)
C5	4.871	5.140	10.011	(0.269)
C6	4.804	4.938	9.742	(0.134)
C7	4.717	4.765	9.482	(0.049)
C8	5.000	4.856	9.856	0.143
C9	5.215	4.782	9.997	0.433
C10	5.099	4.922	10.021	0.177
C11	4.842	4.778	9.619	0.064
C12	4.597	4.782	9.379	(0.185)
C13	4.684	5.025	9.709	(0.341)
C14	4.746	4.970	9.716	(0.225)
C15	4.783	4.905	9.688	(0.122)
C16	4.835	5.092	9.927	(0.257)
C17	4.818	4.371	9.190	0.447
C18	4.922	4.786	9.708	0.136
C19	4.832	4.588	9.420	0.244
C20	4.810	4.818	9.629	(0.008)
C21	4.743	4.691	9.433	0.052
C22	4.637	5.015	9.652	(0.378)
C23	4.856	4.855	9.711	0.001
C24	4.482	5.182	9.664	(0.700)
C25	4.653	4.557	9.210	0.096
C26	5.391	4.926	10.317	0.466
C27	5.921	4.846	10.767	1.076

4. The cause-and-effect diagram of aspect is mapped in Fig.1 that presents information quality (A1), brand reputation (A3) and economic feasibility (A6) are in the cause group, while transaction safety (A2), brand trust (A4) and continuous intention to use (A5) are in effect group.

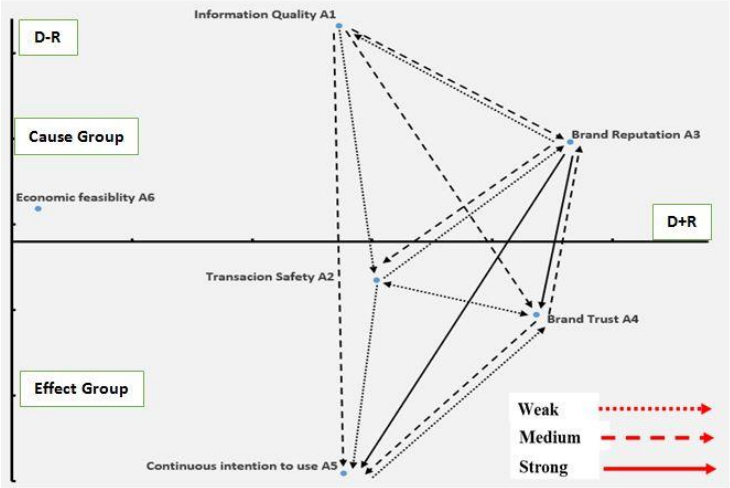

Figure 1. *Cause and effect diagram for aspects*

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Fig.1 presents that the brand reputation (A3) and information quality (A1) are the two aspects that drive the continuous intention to use in sharing economy. Although brand trust (A4) is considered to be one of the affected attributes in the overall scenario.

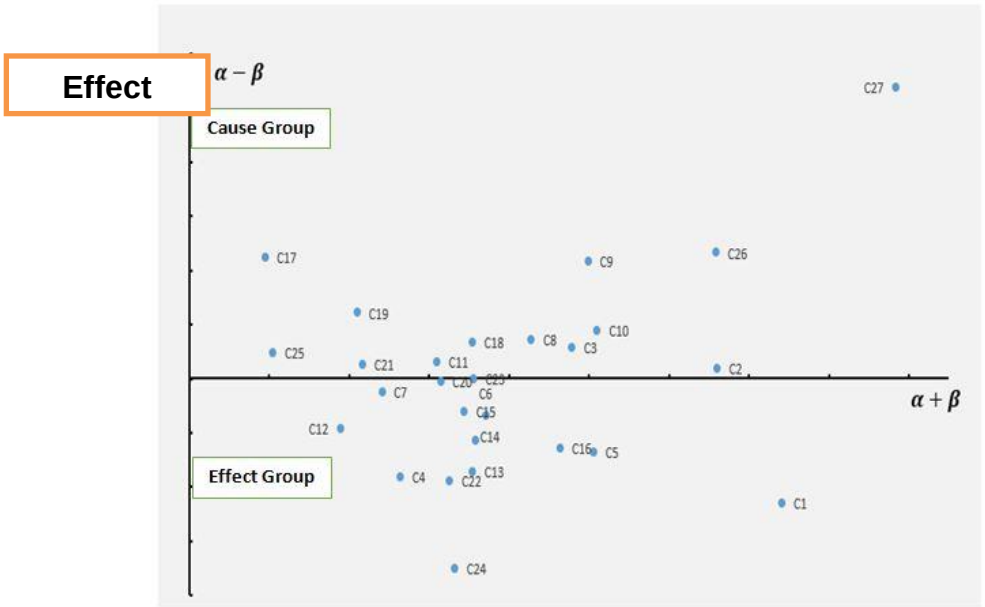

Figure 2. *Cause and effect diagram for criteria*

Fig. 2 presents that the main criteria to explore the trust as imperative for customers to participate in sharing economy platforms, leading to an improvement from the customer intention perspective lie within the cause group. The causal criteria include outsourced labour service (C23), share information (C20), digital platform (C18), workplace and vitality (C13), new technologies (C17) and increases cost-efficiency (C8). These criteria are essential for the industry to monitor and evaluate practical improvements in sharing economy.

5. Similarly, the cause-and-effect diagram of criteria is presented in Fig. 2. The result shows that provide benefits (C27), reasonable price (C26), security about the electronic payment (C9), a good reputation (C10), and useful information (C2). These five are the important criteria that act as a strategic factor with strong connections to improvement from the customer intention perspective in sharing economy.

5. Conclusion

Sharing economy platforms appear to resonate almost instinctively in India, as a result of which companies such as Oyo rooms and Uber, among others, are gaining traction in the business commercial marketplace. Sharing economy platforms are gaining traction in the commercial marketplace and are quickly becoming a viable option for customers. As a result, this study attempts to assert appropriate expert approaches as well as customer perceptions to improve the sharing economy trust criteria from the perspective of customer intention. This study proposes a set of attributes that includes six aspects, including information quality, transaction safety, brand reputation, brand trust, continuous intention to use, and economic feasibility, as well as 27 criteria. To assessed experts and customers linguistic preferences to provide valid and reliable results with both academic and practical implications. This study adopts the fuzzy DEMATEL to confirm attributes interrelationships and anticipate the attributes in cause-and-effect groups.

The study finds that brand reputation and information quality are the causal groups that directly impact continuous intention to use sharing economy platforms. These aspects play a significant role in undermining the improvement from the customers' intention perspective. The top causal criteria that lead to improvement from the perspective of customer intention in sharing economy platforms were discovered to be benefits, reasonable prices, secure electronic payment, good reputation, and useful information. However, economic feasibility is a causal factor that leads to improvements in customer intention in sharing economy platforms. These aspects and criteria are recognized as important factors in terms of customer intention and performance in sharing economy platforms.

This study contributes to both theoretical and managerial understandings of sharing economy by affirming the progressive structure and recognizing the significant characteristics that essentially affect the improvement from the customers' intention perspective in sharing economy platforms. Brand reputation and information quality are identified as the most significant aspects influencing customers in the sharing economy platforms framework. In addition, provide benefits, reasonable prices, secure electronic payment, good reputation and useful information are imperative criteria that influence customers willingness to continue engaging in sharing economy platforms.

There are some limitations to this study. First, the assessment of aspects and criteria were deliberately distinguished by a comprehensive literature review. Second, a predetermined number of specialists and customers were studied because of geological boundaries. Perhaps, future studies should expand the framework to a progressively far-reaching setting. Moreover, even though the legitimacy and dependability of the various levelled structure are affirmed, the number of respondents should be expanded in future examinations to ensure consistency and avoid distortion.

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