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DETERMINANTS OF USER ADOPTION BEHAVIOR IN SHARED BICYCLE SERVICES: EMPIRICAL EVIDENCE FROM YULU BICYCLES IN INDIA

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Abstract:

Purpose

Bicycle sharing is catching up in India in the last decade with focus on healthy and sustainable living. There have been very limited studies conducted on human behavior in the domain of sharing bicycles . This study has been conducted to fill this research gap so that a model can be developed to investigate the behavioral factors affecting the shared bicycle,

Over the past decade, bicycle sharing has grown quickly in India, supported by increasing interest in healthy and sustainable lifestyles. Yet, there is still limited research on how shared bicycle users behave. To bridge this gap, this paper introduces an all-encompassing framework that explores the main factors shaping shared bicycle user behavior.

Research Design/methodology/approach

To empirically examine the research model and associated hypotheses, primary data were collected through a field survey administered to 142 shared bicycle users.

Findings

The highlights are that hedonic value positively effects users' behavior intention. Especially, social value was found to have the strongest impact on users' behavior intention.

Originality/value

The authors explore the factors of basic human values that affect users' behavior. Secondly, there is limited research on shared bicycles in the context of values and behavior links. The researchers addressed this gap and established that hedonic value and social value influence behavior intentions more than utilitarian and symbolic values.

Research Design/methodology/approach

A field survey of 142 shared bicycle users was conducted to empirically test the proposed research model and associated hypotheses.

Findings

The results show that hedonic value has a significant positive effect on users' behavioral intentions. Notably, social value emerges as the strongest determinant of users' behavioral intentions.

Originality/value
First, this study investigates how fundamental human values shape users' behavioral intentions. Second, it addresses the limited research on shared bicycles within the value–behavior framework by demonstrating that hedonic and social values exert stronger influences on behavioral intentions than utilitarian and symbolic values.

Introduction

The sharing economy has gained significant scholarly and managerial attention as an emerging market paradigm characterized by platform-enabled business models, including bicycle-sharing services (e.g., Mobike and Yulu), peer-to-peer accommodation platforms (e.g., Airbnb), and shared automotive mobility services (e.g., Uber and Didi) (Parente et al., 2017). Rather than emphasizing ownership, this model facilitates temporary access to underutilized goods, services, spaces, and other assets. Supported by advances in information and communication technologies (ICT), digital platforms enhance market efficiency by connecting service providers and users at scale. Consequently, the sharing economy has experienced rapid expansion, with its global market value projected to increase from approximately USD 14 billion in 2014 to nearly USD 335 billion by 2025 (Yaraghi & Ravi, 2017).

The rapid growth of smartphone usage and mobile internet penetration in India, alongside escalating urban pollution, has heightened interest among both industry and academia in shared bicycle services as a sustainable mobility alternative. Although bicycle ownership has generally declined, it remains significant, with 44.8% of Indian households owning a bicycle (Census of India, 2011).

In response, the Government of India has initiated efforts to promote cycling as a non-motorized transport option in several major cities, including Bangalore, Delhi, Hyderabad, Pune, and Chennai, among others. These initiatives include the development of dedicated cycling lanes, the introduction of public bicycle-sharing systems, and supportive infrastructure measures such as intersection redesign and cycling signage.

Accourding to (Shaheen,2010) bicycle-sharing is when individuals use bicycles whenever needed without the costs and responsibilities of bicycle ownership. Basu, S., & Vasudevan, V. (2013) revealed that Indians are primarily positive about bicycle sharing service and out of total sample of 712 people 87.50 percent people believe that there should be bicycle sharing services in their cities.

Bicycle sharing has many benefits, it saves money, time and reduces the parking space ideally required for bigger vehicles. Additional attention should also be given to maintaining the lower income level group ridership and increasing ridership of age segments of consumers – school kids, parents and other commuter groups..

Yulu Bikes is one of India's leading micro-mobility platforms, offering app-based shared electric and non-electric bicycles designed to address first- and last-mile urban transportation challenges. Founded in 2017, Yulu operates primarily in high-density metropolitan areas such

as Bangalore, Mumbai, Delhi-NCR, and Hyderabad, with a strong focus on short-distance, low-cost, and environmentally sustainable travel.

The platform leverages smartphone applications, GPS tracking, IoT integration, and digital payment systems to enable seamless, dockless access to bicycles and electric bikes. Yulu's flagship electric vehicle, *Miracle*, is tailored for urban commuting, particularly for daily wage workers, gig-economy participants, and metro users seeking reliable last-mile connectivity. By emphasizing affordability, ease of access, and minimal environmental impact, Yulu positions itself as a sustainable alternative to motorized two-wheelers and auto-rickshaws for short trips.

- The sharing economy is an upcoming market model where digital platforms enable temporary access to underutilized assets such as bicycles, rooms, and cars, instead of promoting ownership.
- Examples of such platforms include bicycle-sharing services (Mobike, Yulu), peer-to-peer accommodation (Airbnb), and ride-sharing services (Uber, Didi).
- This model is powered by advances in ICT, which allow platforms to efficiently match service providers and users at scale.
- The global sharing economy market was estimated at about USD 14 billion in 2014 and is projected to grow to around USD 335 billion by 2025.
- In India, rising smartphone use, mobile internet penetration, and growing urban pollution have increased interest in shared bicycle services as a sustainable mobility option.
- Although bicycle ownership has declined, it remains important, with 44.8% of Indian households still owning a bicycle.
- The Government of India is promoting cycling in major cities (such as Bangalore, Delhi, Hyderabad, Pune, and Chennai) through dedicated cycle lanes, public bicycle-sharing systems, and supporting infrastructure like redesigned intersections and cycling signage.
- Bicycle sharing allows people to use bicycles when needed without bearing the costs and responsibilities of ownership.
- Survey evidence shows Indians are largely positive about bicycle-sharing; in one study, 87.5% of 712 respondents felt their cities should have such services.
- Bicycle sharing offers benefits such as saving money, time, and parking space, and policies should also focus on retaining low-income riders and increasing use among children, parents, and other commuter groups.
- Yulu is a leading Indian micro-mobility platform providing app-based shared electric and non-electric bicycles to solve first- and last-mile urban transport issues.

- Founded in 2017, Yulu mainly operates in dense urban areas like Bangalore, Mumbai, Delhi-NCR, and Hyderabad, focusing on short, low-cost, environmentally friendly trips.
- The service uses smartphones, GPS, IoT, and digital payments to offer seamless, dockless access to bikes and e-bikes.
- Yulu's flagship e-vehicle, Miracle, targets urban commuters such as daily wage earners, gig workers, and metro users needing reliable last-mile connectivity.
- By prioritizing affordability, convenience, and low environmental impact, Yulu positions itself as a sustainable alternative to motorized two-wheelers and auto-rickshaws for short-distance travel.

Brief overview of collaborative consumption and Sharing activity

Collaborative consumption is enabled by digital platforms that connect individuals in peer-to-peer marketplaces, allowing them to participate in diverse forms of exchange such as renting, lending, trading, bartering, and swapping goods, services, mobility options, spaces, or financial resources (Möhlmann, 2015). This phenomenon is closely aligned with the broader notion of the sharing economy, which refers to an economic system in which individuals provide access to underutilized assets or services, either without charge or for a fee (Botsman, 2015). As scholarly discourse has progressed, related concepts such as the collaborative economy have also been introduced (Owyang, 2015); however, the underlying principle remains consistent. Collaborative consumption represents an alternative and environmentally responsible mode of consumption that enables users to access ownership-like benefits while minimizing individual costs, responsibilities, and environmental consequences (Botsman & Rogers, 2010). This perspective encompasses a wide spectrum of practices, including sharing, exchanging, and gift-based transactions.

Theoretical background and hypotheses

2.1 Customer perceived value and subjective well-being In 1988, Zeithaml put forward the theory of customer perceived value (CPV), which she defined as the overall evaluation of the benefits of the product or service that the customer can perceive, and the trade-off between the gain and the cost of the product or service. (Zeithaml,1988).

Research on the theory of CPV is divided into two camps:

1 One examines the concept from the perspective of customer perception, meaning what benefits the customer gains from a product or service, including customer value and experience value.

2 The second group examines CPV from the perspective of the business, focusing on the value of the customer to the business, including customer lifetime value and customer engagement value.

Most scholars divide CPV into two dimensions, utilitarian value and hedonic value (Kim and Han, 2011; Chiu *et al.*,2014), there are also some scholars who divided CPV into three dimensions: utilitarian value, hedonic value and social value (Kim *et al.*, 2013a; Yu *et al.*, 2013). In addition, some scholars consider cognitive and emotional value (Hur *et al.*, 2012; Yang and Lin, 2014). In the early stages of the theory's development, CPV was applied to the study of enterprise practice by a large number of scholars (Chen and Quester, 2006). In recent years, more scholars have applied the theory to the study of consumer behavior (Kim, 2015; Tasci, 2016). Many of these scholars have found that once customers perceive value, they will generate a series of positive behaviors, such as a positive attitude, adoption intention, continued use behavior, satisfaction and loyalty (Ryu *et al.*, 2008; Kuo *et al.*, 2009). In this research study, we will draw upon the CPV theory to explain how users' perceptions of value affect their behavioral intention.

Literature review

Behavior intention

Purchase intention is widely recognized in consumer behavior research as a reliable antecedent of actual purchasing behavior. Within the cognitive hierarchy framework, favorable behavioral intentions are conceptualized as outcomes of positive attitudinal evaluations (Homer & Kahle, 1988). This attitude–intention relationship has been consistently validated in prior research (Ha & Janda, 2012) and is theoretically grounded in the Theory of Reasoned Action (TRA), which posits that the strength of intention determines the likelihood of behavioral enactment (Ajzen & Fishbein, 1980). Recent empirical studies further corroborate this relationship in collaborative and sharing economy contexts, demonstrating that positive consumer attitudes significantly enhance purchase and usage intentions toward shared services (Hamari et al., 2016; Bardhi & Eckhardt, 2017; Watanabe et al., 2020; Sung et al., 2022). Based on the above, there is sufficient ground to argue that a positive disposition toward collaborative consumption services significantly drives consumers' purchasing intentions.

Utilitarian value

Shopping value is widely conceptualized along two primary dimensions—hedonic and utilitarian. Hedonic shopping value originates from the experiential components of consumption, including sensory stimulation, emotional involvement, and imaginative enjoyment, whereas utilitarian shopping value relates to the efficient, goal-oriented acquisition of products or information and reflects a more cognitive and functional evaluation of the shopping process (Babin et al., 1994; Holbrook & Hirschman, 1982). Accordingly, utilitarian value captures the extent to which a shopping experience facilitates task completion, while hedonic value is derived from the intrinsic pleasure of the experience itself, independent of instrumental outcomes (Babin & Attaway, 2000). Recent research confirms the continued relevance of this distinction across digital, omni-channel, and platform-based consumption settings, demonstrating that both value dimensions play critical roles in shaping consumer satisfaction and behavioral intentions (Grewal et al., 2017; Hwang & Griffiths, 2017; Vieira et al., 2018; Kang et al., 2021).

Utilitarian value primarily emerges from the functional and objective benefits of consumption, with consumers preferring products and services that enable goal attainment with minimal effort, complexity, or frustration. Contemporary studies further suggest that efficiency-driven value perceptions increasingly coexist with ethical and sustainability considerations, as consumers seek economically advantageous options that also reflect social and environmental responsibility (Eckhardt et al., 2010; White et al., 2019; Talwar et al., 2020; Wiederhold & Martinez, 2018).

Hedonic value

Hedonic value represents a personal and subjective dimension of consumption that arises primarily from enjoyment, playfulness, and emotional engagement rather than from the completion of functional tasks (Babin et al., 1994). Evaluations grounded in hedonic value are predominantly affective and emphasize experiential, non-instrumental, and intangible outcomes, often associated with sensory stimulation and emotional responses elicited by products, services, or retail environments (Hirschman & Holbrook, 1982; Babin et al., 1994). The experiential and exploratory nature of hedonic value underscores the entertainment and emotional gratification embedded in the shopping process, wherein pleasure is derived from the experience itself rather than from achieving predefined objectives.

Contemporary research continues to affirm that hedonic value emerges from the multisensory and emotive aspects of consumption, as consumers increasingly seek enjoyment, excitement, and imaginative engagement across physical, digital, and omni-channel shopping contexts (Childers et al., 2002; Holbrook, 1994; Vieira et al., 2018; Hwang & Griffiths, 2017; Kang et al., 2021). Compared with utilitarian or functional value, hedonic value is more idiosyncratic and emotionally driven, reinforcing the view that a comprehensive understanding of consumer value perceptions requires the simultaneous consideration of both hedonic and utilitarian dimensions (Sweeney & Soutar, 2001; Lemon & Verhoef, 2016).

Social value

Social value emerges when users recognize that their engagement with shared bicycle services contributes to collective societal outcomes, such as reduced traffic congestion, lower carbon emissions, and improved urban environmental quality. Beyond individual benefits, such prosocial perceptions enhance the overall evaluation of shared mobility services. Extant research demonstrates that customer perceived value (CPV) significantly influences user satisfaction and subsequent behavioral intentions (Kuo et al., 2009; Kim & Oh, 2011). More recent studies further confirm that perceived social and environmental value positively affects adoption and continued usage of shared and sustainable mobility services, particularly in urban contexts (Hamari et al., 2016; Bardhi & Eckhardt, 2017; Watanabe et al., 2020; Xu et al., 2022). These findings underscore the growing relevance of social value in shaping consumer responses to collaborative consumption platforms.

Symbolic Value

Symbolic value represents the socially responsible and environmentally conscious benefits embedded within collaborative consumption, which in turn is driven by consumers' escalating concern for sustainability and ethical conduct. When shared mobility services highlight their role in reducing carbon emissions and resource consumption, users—particularly younger consumers—are more likely to perceive symbolic value, as environmentally responsible choices serve as signals of altruism and collective concern (Greendex, 2014; Bird & Smith, 2005). Recent studies indicate that pro-environmental self-expression and moral identity significantly influence consumers' adoption of shared and sustainable mobility solutions (Hamari et al., 2016; Bardhi & Eckhardt, 2017; Lang & Armstrong, 2018; Watanabe et al., 2020). Moreover, empirical evidence suggests that younger consumers increasingly adopt alternative transportation modes to align their consumption behavior with environmental values (Davis & Dutzik, 2012; Ritter & Schanz, 2019). Accordingly, it is hypothesized that perceived symbolic value positively influences consumers' behavioral intentions toward collaborative consumption services.

- Customer perceived value (CPV) refers to the holistic assessment made by customers regarding a product or service, based on the balance between the benefits they perceive and the costs they incur.
- CPV research follows two main streams: one focuses on value from the customer's perspective (customer value, experience value), and the other on value from the firm's perspective.
- Scholars commonly conceptualize CPV as comprising utilitarian and hedonic value, with some adding social, cognitive, and emotional value as additional dimensions.
- CPV has been applied first in managerial practice and later extensively in consumer behavior studies, showing that perceived value leads to positive outcomes such as favorable attitudes, adoption intention, continued use, satisfaction, and loyalty.
- The present study uses CPV theory to explain how perceived value dimensions shape users' behavioral intentions.
- Behavioral intention, especially purchase intention, is widely accepted as a strong predictor of actual behavior in consumer research.
- Within the cognitive hierarchy and Theory of Reasoned Action, favorable attitudes lead to stronger behavioral intentions, which in turn increase the likelihood of performing the behavior.
- Empirical work in sharing and collaborative consumption contexts shows that positive attitudes significantly enhance purchase and usage intentions for shared services.
- Shopping value is typically divided into hedonic (experiential, emotional, sensory) and utilitarian (functional, goal-oriented, efficiency-based) dimensions.

- Utilitarian value captures how effectively and efficiently a consumption experience helps users achieve their goals, with minimal effort, complexity, or frustration.
- Contemporary studies indicate that utilitarian value now often incorporates ethical and sustainability considerations, as consumers seek solutions that are financially viable as well as socially and environmentally accountable.
- Hedonic value is a subjective, affective dimension rooted in enjoyment, playfulness, and emotional engagement rather than task completion.
- It is associated with multisensory stimulation, emotional responses, and the entertainment aspects of consumption across physical, digital, and omni-channel environments.
- Because hedonic value is idiosyncratic and emotionally driven, a full understanding of consumer value perceptions requires considering both hedonic and utilitarian dimensions together.
- Social value arises when users perceive that their participation in shared bicycle services contributes to societal outcomes, such as reduced congestion, lower emissions, and better urban environments.
- Perceived social and environmental value has been shown to enhance satisfaction, adoption, and continued use of shared and sustainable mobility services, especially in urban settings.
- Symbolic value reflects the prosocial and sustainability-oriented meaning consumers attach to collaborative consumption, linked to environmental concern and social responsibility.
- When shared mobility services emphasize their environmental benefits, users—particularly younger consumers—view adoption as a form of pro-environmental self-expression and moral identity signaling.
- Evidence indicates that younger consumers increasingly choose alternative transport modes to align behavior with environmental values, supporting the hypothesis that symbolic value positively influences behavioral intentions toward collaborative consumption.

Based on the above literature review, this paper proposes the following hypotheses for investigation:

H1: The utilitarian value perceived by users is positively associated with their intention to adopt shared bicycle services.

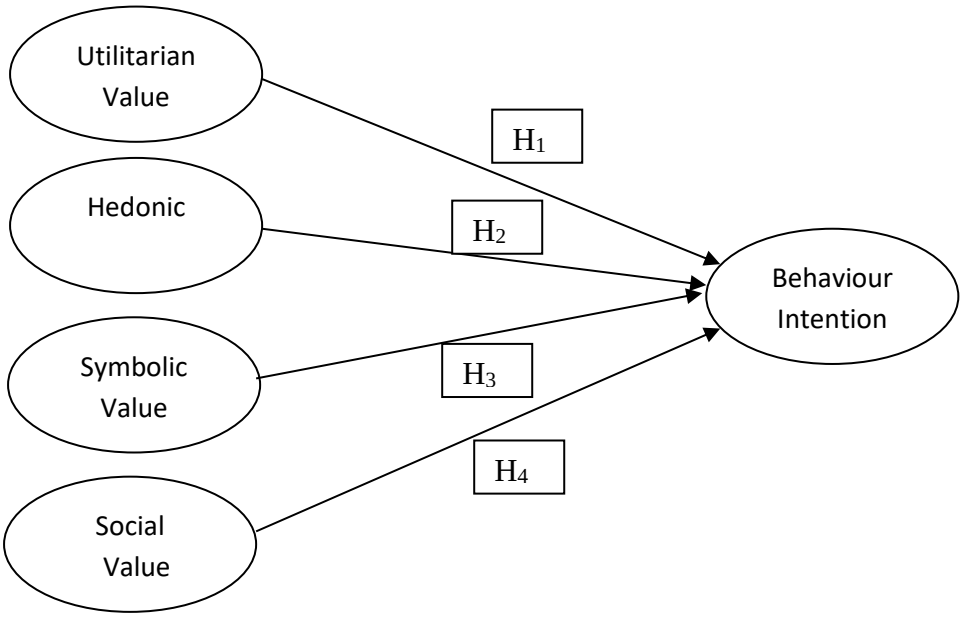
H2: The hedonic value perceived by users is positively associated with their intention to adopt shared bicycle services.

H3: The social value perceived by users is positively associated with their intention to adopt shared bicycle services.

H4: The symbolic value perceived by users is positively associated with their intention to adopt shared bicycle services.

Fig: 1.1.

Proposed model



Research methodology

Measures

We conducted a survey in two universities in Gujarat state which are Ganpat university and Pandit Dindayal petroleum university. Drawing upon prior scholarly works, the items used to measure each variable were modified accordingly, with detailed references provided in Table I. Specifically, three utilitarian value items and three hedonic value items were sourced and adapted from De Vries and Carlson (2014). The scale of social value was revised from Shen *et al.* (2013). All items were measured on a five-point Likert scale ranging from 1 (strongly disagree/unlikely) to 5 (strongly agree/likely).

Construct measuring: Table.1

Factor	**Measure items**	**Source**
Utilitarian value (UV)	The use of shared bicycles is helpful for me The use of shared bicycles is useful for me The use of shared bicycles is practical for me	De Vries and Carlson (2014)
Hedonic value (HV)	The use of shared bicycles is fun The use of shared bicycles is exciting The use of shared bicycles is pleasant	De Vries and Carlson (2014)
Symbolic value (SyV)	To me, using the Yulu bicycle sharing service Would make me feel smart Would make me feel more responsible Would make me feel as a part of a larger cultural movement	Hwang (2012)
Social value (SV)	The use of shared bicycles improves the way I am perceived The fact I use shared bicycles makes a good impression on other people The use of shared bicycles gives me social approval	Shen et al. (2013)
Behaviour intention (BI)	Very likely use Yulu's shared bicycles in future Probably use Yulu's shared bicycles in future Certainly use Yulu's shared bicycles in future	Hwang.F.&Griffiths.M. (2017)

Data collection

The study utilized a questionnaire-based survey to examine the underlying factors that influence user behavior. Aiming for demographic diversity, the survey was randomly disseminated with the help of university students. Eligibility was restricted to respondents who had previously used shared bicycles. Participants were invited to complete a concise questionnaire, which commenced with an introductory overview and subsequently requested personal information along with responses to targeted questions regarding their shared bicycle experiences.

The final questionnaire contained 15 questions relating to the various constructs. 142 respondents participated in the survey. For the purpose of data gathering, a non-probability convenience sampling strategy was employed. The final version of the questionnaire incorporated demographic variables, namely gender, age, level of education, and monthly income, recognizing that individual demographic characteristics may significantly influence users' behavioral intentions toward shared bicycle usage. Sample description Table.2

Variables			
Gender	Category	Frequency	Percentage
	Male	64	45.07
	Female	78	54.93
Age	Less than 20	24	16.90
	21-30	118	83.09
	31-40	0	0
	41-50	0	0
	More than 50	0	0
Household Income/month	Less than Rs.15000	12	8.45
	15001-25000	42	29.57
	25001-50000	49	34.50
	Greater than 50000	39	27.46
Education	High school	0	0
	Graduation	113	91.54
	Post-graduation	28	19.71
	Doctorate	1	0.70
	Other	0	0

Results

Reliability analysis

To check the scale reliability Cronbach alfa was measured and found more than 0.6 for each construct so the scale is reliable.

Table.3

Factor	**Measure items**	**Reliability**
Utilitarian value (UV)	The use of shared bicycles is helpful for me The use of shared bicycles is useful for me The use of shared bicycles is practical for me	0.619
Hedonic value (HV)	The use of shared bicycles is fun The use of shared bicycles is exciting The use of shared bicycles is pleasant	0.672
Symbolic value (SyV)	To me, using the Yulu bicycle sharing service Would make me feel smart Would make me feel more responsible Would make me feel as a part of a larger cultural movement	0.721
Social value (SV)	The use of shared bicycles improves the way I am perceived The fact I use shared bicycles makes a good impression on other people The use of shared bicycles gives me social approval	0.601
Behaviour intention (BI)	Very likely use Yulu's shared bicycles in future Probably use Yulu's shared bicycles in future Certainly use Yulu's shared bicycles in future	0.665

Regression analysis

In accordance with study's objectives, regression is an appropriate statistical analysis considering the fact that behaviour intention (dependent variable) was measured on metric scale and all values were also measured on metric scale. The model containing all dimensions was significant, $R^2 = 0.216$, $p < 0.05$. Among these dimensions, the results suggest that utilitarian value (p=0.460) and symbolic value (p=0.268) found to be non-significant and

suggest that do not have much impact on behaviour intention. Another two variables named hedonic value (p=0. 019) and social value (p=0.000) found to be significant.

Table.4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.465[a]	.216	.193	.60782

a. Predictors: (Constant), soci_value, uti_value, symbo_value, hedo_value

Table.5

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.962	4	3.490	9.448	.000[a]
	Residual	50.614	137	.369		
	Total	64.576	141			

a. Predictors: (Constant), soci_value, uti_value, symbo_value, hedo_value

b. Dependent Variable: Beh_int1

Table.6

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.791	.239		3.310	.001		
	uti_value	-.053	.072	-.060	-.741	.460	.864	1.158
	hedo_value	.173	.073	.201	2.382	.019	.804	1.243
	symbo_value	.076	.069	.093	1.112	.268	.822	1.216
	soci_value	.290	.075	.328	3.855	.000	.789	1.267

a. Dependent Variable: Beh_int1

No issues of multicollinearity were evident as all displayed VIF (variance inflation factor) statistics were not more than 10 (Myer, 1990). No variables indicated the problem of multicollinearity (Tabachnick and Fildell, 1996). (Refer Table 6).

Discussion and implications of the study

The findings demonstrate that both hedonic value and social value play a meaningful role in shaping users' behavioral intentions.One plausible explanation is the demographic composition of the sample, which primarily comprised young students. This segment tends to prefer products and services that offer enjoyment, excitement, and experiential appeal. Innovative offerings such as smart bicycle-sharing systems are particularly attractive to younger users due to their novelty and entertainment value.

Social value was also found to significantly affect behavioural intention. This effect may be attributed to the heightened image consciousness among young consumers, who often seek to create favourable impressions within their social circles. Participation in shared bicycle programs allows users to project a positive social image and enhances perceived social approval, potentially leading to greater recognition within the community.

In contrast, utilitarian value did not exhibit a significant influence on behavioural intention. This finding suggests that users may not perceive substantial economic benefits from using Yulu’s shared bicycle services. Although users can reduce fuel expenses, this advantage may be offset by the rental charges associated with bicycle usage. Additionally, concerns related to digital payment security—such as apprehension toward using Paytm to unlock bicycles—may further diminish perceptions of functional value.

Similarly, symbolic value was found to be non-significant, likely due to the nascent stage of bicycle-sharing adoption in the Indian context. Limited awareness of shared mobility concepts and their broader societal benefits may reduce users' motivation to associate such services with responsible citizenship or participation in a larger cultural or sustainability-driven movement. However, as shared bicycle services gain wider acceptance and familiarity over time, symbolic value may emerge as a more influential determinant of behavioral intention in the future.

- The study finds that hedonic value and social value significantly influence users' behavioural intentions toward shared bicycle services.
- A key reason is the predominantly young student sample, a segment that favours enjoyable, exciting, and experience-oriented products and services.
- Smart bicycle-sharing systems appeal strongly to younger users because of their novelty, entertainment value, and experiential benefits.
- Social value was likewise found to positively and significantly influence behavioral intention.
- This is linked to high image consciousness among young consumers, who aim to create favourable impressions within their peer groups.
- Using shared bicycles helps users project a positive social image, enhances perceived social approval, and may increase recognition in their communities.
- Utilitarian value does not significantly influence behavioural intention.
- Users may not perceive strong economic gains from Yulu usage because fuel savings can be offset by rental charges.
- Concerns about digital payment security (for example, hesitation in using apps like Paytm to unlock bicycles) can further weaken perceptions of functional or economic value.
- Symbolic value is also non-significant in shaping behavioural intention.
- This may be due to the early stage of bicycle-sharing adoption in India and limited awareness of shared mobility and its societal benefits.
- As awareness, adoption, and cultural familiarity grow, symbolic value may become a more important driver of behavioural intention in the future.

Limitations and future scope of the study

This study is subject to several limitations. First, the construct of perceived risk was not incorporated into the research model, which may have influenced users' behavioral intentions toward bicycle-sharing services. Second, the sample largely comprised college students, representing a relatively well-educated and homogeneous consumer group rather than the

broader population. As a result, participants' perceptions and responses to bicycle sharing may be shaped by specific campus-related experiences and cultural exposure, thereby restricting the generalizability of the findings. Third, the study relied on a convenience sampling approach, which further limits the extent to which the results can be generalized to other demographic groups or contexts.

Upcoming studies may consider broadening the current framework by integrating other influential factors, such as perceived risk, consumer trust, and technology-related apprehensions, to provide a more comprehensive understanding of behavioral intentions in the context of bicycle-sharing services. Studies employing more heterogeneous and representative samples, along with probability-based or multi-city designs, would enhance the generalizability of findings. Moreover, longitudinal and comparative research across different stages of market maturity could provide deeper insights into how consumer perceptions and usage patterns evolve as shared mobility services become more established.

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