

THE INFLUENCE OF ECONOMIC, SOCIAL, AND ENVIRONMENTAL BENEFITS ON CONSUMER ATTITUDES AND BEHAVIORAL INTENTIONS TOWARD PEER-TO-PEER PLATFORMS

1 INTRODUCTION

The sharing economy has emerged as a transformative phenomenon in business and consumer behavior, promoting the collaborative consumption (Bardhi & Eckhardt, 2012) and addressing economic and environmental challenges such as global warming (Liu & Chen, 2020). This model transforms traditional communities into collaborative global networks, yielding positive economic, social, and environmental outcomes (Cohen & Kietzmann, 2014).

In that context, Peer-to-peer (P2P) markets have become significant sociocultural phenomena, highlighted by their high profit potential (Wirtz et al., 2019). P2P platforms offer community-based benefits, enhanced interactions, and environmental friendliness (Benjaafar et al., 2019; Wirtz et al., 2019).

The success of P2P business models hinges on continuous member participation (Stofberg et al., 2021), necessitating an understanding of consumers' perceptions of sustainability (Benjaafar et al., 2019). Despite efforts to comprehend consumption motivations (Böcker & Meelen, 2017; Hamari et al., 2016), there is still no clear understanding of how consumers perceive sustainability dimensions and how this influences their attitudes and intentions, particularly in the context of platform use.

"Customer-centered sustainability" aligns sustainability actions with consumer needs and well-being across economic, social, and environmental dimensions (Sheth et al., 2011). Many sustainability strategies fail by not focusing on the customer, ignoring overconsumption, and lacking a holistic view. This study aims to enhance sustainable efforts by aligning them with customer perceptions.

Furthermore, in alignment with Sustainable Development Goal (SDG) 12, this research seeks to optimize resource efficiency and transform consumption patterns (Liu & Chen, 2020). P2P technology promotes sustainable infrastructures, supports SDG 9, and contributes to SDGs 8 and 11 by fostering sustained economic growth and making cities more inclusive, and resilient.

Given the popularity of sharing economies in major metropolises, the city of São Paulo, Brazil, as a major urban center, serves as an ideal setting for this study due to its population density and role as an epicenter of economic, technological, and cultural activity (Ferrari et al., 2023). The research addresses the question: what is the influence of perceived economic, social, and environmental benefits on consumer attitude and behavioral intention on P2P platforms?

The objectives are: (i) to investigate the influence of perceived economic, social, and environmental benefits on consumer attitude and behavioral intention in P2P platforms; (ii) to identify whether attitude mediates the relationship between these perceived benefits and consumer behavioral intention; and (iii) to verify whether sociodemographic characteristics (gender, age, education, and income) moderate the effects of perceived benefits on attitude and behavioral intention in the context of the sharing economy.

2 THEORETICAL BACKGROUND AND DEVELOPMENT OF HYPOTHESES

The sharing economy, an "umbrella concept" for new economic practices and social interactions (Ahsan, 2020), emerged in the late 1990s and early 2000s with platforms like eBay and CouchSurfing, facilitating large-scale P2P relationships. These platforms, consisting of a platform provider, service provider, and customer (Ertz et al., 2016), promote efficient resource use and social interactions, addressing sustainability issues, particularly in developing countries (Raza et al., 2021). Attracting consumers focused on sustainability and economy (Benjaafar et al.,

2019), these platforms challenge traditional practices and generate positive economic, social, and environmental impacts (Piscicelli et al., 2018).

The sharing economy disrupts hyper-consumption, promoting equitable resource distribution and aligning sustainability efforts with customer perceptions (Botsman & Rogers, 2010; Sheth et al., 2011). Integrating technologies and social networks into business models enhances sustainability across multiple dimensions (Cohen & Kietzmann, 2014).

Economic benefits in P2P exchanges are prevalent, driving consumer behavior by offering greater benefits at lower costs (Barnes & Mattsson, 2017). These benefits influence shared consumption and the intention to participate in collaborative consumption (Hamari et al., 2016), making them a strong driver (Hawlitschek et al., 2018). This more, collaborative consumption satisfies social needs, such as socialization and belonging (Botsman & Rogers, 2010). The Internet extends interactions beyond local communities, and P2P platforms promote social engagement (Barnes & Mattsson, 2017). Studies aspects and linked to attitude and the intention to engage in sustainable consumption (Dabbous & Tarhini, 2019). Already the environmental benefits arise from efficient asset use (Botsman & Rogers, 2010). Recognition of environmental needs and ecological motivations relates to attitudes and stimulate sustainable behavior (Toni et al., 2018). For Hamari et al. (2016), environmental benefits significantly influence attitude and behavioral intention in collaborative consumption. Therefore, the following hypotheses are proposed: H1 - Perceived economic benefits positively influence consumers' attitudes toward P2P platforms; H2 - Perceived social benefits positively influence consumers' attitudes toward P2P platforms; H3 - Perceived environmental benefits positively influence consumers' attitudes toward P2P platforms.

Attitude is a determinant of behavioral intention (Ajzen, 1991). Studies show its strong influence of attitude on the intention to use sharing services, making it a significant mediating variable in intentional behavior (Kim et al., 2018). Perceived economic, social, and environmental benefits have a complementary mediation effect of attitude on the behavioral intention to engage in P2P platforms (Dabbous & Tarhini, 2019). Hence, the following hypotheses are proposed: H4 - Consumer attitude toward P2P platforms positively influences their behavioral intention to participate in these platforms; H5 - Consumer attitude toward P2P platforms mediates the relationship between perceived benefits (economic, social, and environmental) and the behavioral intention to participate in these platforms.

Sociodemographic characteristics are important moderators in the investigated behavior, as shown in previous studies (Hawlitschek et al., 2018; Kim et al., 2018). Age, gender, education, and income influence participation in the sharing economy (Barbour et al., 2020). Younger individuals, those with higher incomes, and those with higher education are more likely to participate (Hsiao et al., 2018). Gender may influence attitudes toward shared services, with men and women focusing on different aspects (Rasheed & Balakrishnan, 2023). Therefore, the following hypotheses are proposed: H6 - Consumer gender moderates the effects of perceived benefits (economic, social, and environmental) on their attitude toward P2P platforms; H7 - Consumer age moderates the effects of perceived benefits (economic, social, and environmental) on their attitude toward P2P platforms, more positively for younger individuals; H8 - Consumer education moderates the effects of perceived benefits (economic, social, and environmental) on their attitude toward P2P platforms, more positively for highly educated individuals; H9 - Consumer household income moderates the effects of perceived benefits (economic, social, and environmental) on their attitude toward P2P platforms, more positively for higher incomes.

3 METODOLOGIA

Data analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM), a method useful for hypothesis testing by examining interrelationships expressed in equations that describe the relationships between constructs (Hair et al., 2022). This method also allows for

analyzing complex models with unobservable constructs, enabling mediation, moderation, and multi-group analyses (Hair et al., 2022).

Mediation analysis was conducted for the "attitude" construct, and Partial Least Squares Multi-Group Analysis (PLS-MGA) was used to test differences between groups based on demographic characteristics, ensuring measurement invariance using the MICOM procedure (Henseler et al., 2016).

The non-probabilistic quota sampling followed (Malhotra & Dash, 2019) guidance, defining quotas based on demographic variables proportional to São Paulo's city population. The sample size, determined using G*Power 3 software, followed Cohen's (1988) indications and Hair et al. (2022) recommendations. Selection criteria included individuals who used at least one P2P platform, excluding minors, non-residents of São Paulo, and those who had not used P2P platforms in the last year. Bias minimization strategies included transparent descriptions of data collection and analysis, statistical metrics to ensure genuine differences, measurement invariance verification, and content validity checks. The study was approved by the Research Ethics Committee (CEP). The structured questionnaire, based on Francis et al. (2004) recommendations and adapted scales, evaluated 33 variables on a 7-point Likert scale. Data collection occurred online via Google Forms from June to August 2023. Data were processed using SmartPLS® 4 software (Ringle et al., 2015).

4 ANÁLISE E DISCUSSÃO DOS RESULTADOS

A total of 622 individuals responded to the questionnaire. After excluding 123 disqualified responses, 499 valid questionnaires remained for analysis. PLS-SEM modeling was employed to specify the relationships between latent dependent constructs (attitude and behavioral intention) and independent constructs (economic, social, and environmental benefits, subjective norm, and behavioral control). The evaluation involved two stages: assessment of the measurement model (relationship between indicators and constructs) and assessment of the structural model (relationship between constructs) (Hair et al., 2022).

The measurement model evaluation using Confirmatory Composite Analysis (CCA) for PLS-SEM confirmed indicator reliability with outer loadings of 0.708 or higher. Internal consistency (Cronbach's alpha and composite reliability) ranged from 0.60 and 0.90. Convergent validity, measured by Average Variance Extracted (AVE), was above 0.50. Discriminant validity was confirmed using Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT), with cutoffs of 0.85 and 0.90 (Henseler et al., 2015).

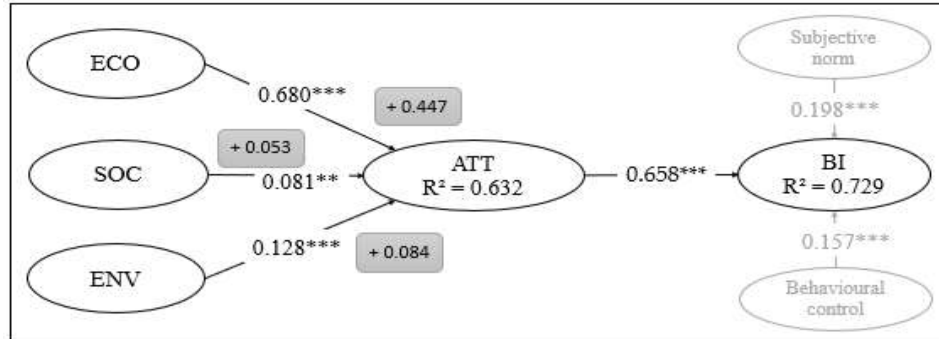
In the structural model, there were no collinearity issues ($VIF < 3$). Path coefficients showed strong relationships: economic benefits to attitude (0.680) and attitude to behavioral intention (0.658). R^2 values were 0.632 for attitude and 0.729 for behavioral intention, indicating moderate explanatory power. Mediation analysis revealed significant direct and indirect effects, indicating complementary partial mediation. Path coefficients and the coefficient of determination (R^2) were assessed, showing direct effects of economic (0.680), social (0.081), and environmental benefits (0.128) on attitude, and indirect effects on behavioral intention (+0.447, +0.053, +0.084, respectively), as depicted in Figure 1.

Multi-Group Analysis (PLS-MGA) assessed path coefficient differences for gender, age, education, and social class groups, with appropriate sample sizes and ensuring configural, compositional, and equal mean and variance invariance (Henseler et al., 2016; Matthews, 2017). Most path coefficients showed no significant differences, except between younger (18-25 years, coefficient 0.532) and older groups (26+ years, coefficient 0.762) in the attitude-behavioral intention relationship. Therefore, analyzing the combined dataset was appropriate.

Five of the nine hypotheses were supported. The structural model explained 63.2% of the variance in attitude and 72.9% in behavioral intention. Economic benefits had the strongest

influence on attitude, followed by environmental and social benefits. This aligns with studies indicating financial aspects drive attitudes and intentions on P2P platforms (Raza et al., 2021).

Figure 1 - Structural Model and Impact of Mediation Effects



Source: authors.

Behavioral intention mainly explained by attitude, with subjective norm and behavioral control also contributing, supporting hypotheses H4 and H5. Hypotheses H6-H9, investigating demographic variables as moderators, were rejected, suggesting demographics do not significantly moderate the relationships between perceived benefits and attitude (Böcker & Meelen, 2017).

Multi-group analysis showed older individuals have a more favorable attitude toward sharing (Miller et al., 2020), possibly due to increased mobile device use (Hu et al., 2021). The study emphasizes customer-centered sustainability, highlighting that economic, social, and environmental benefits enhance P2P platform adoption (Lai & Ho, 2020).

5 CONCLUSIONS

This research investigated the influence of perceived economic, social, and environmental benefits on the attitudes and behavioral intentions of consumers using P2P platforms within the sharing economy. The findings revealed that economic benefits exerted the strongest impact, while social benefits had the least influence. Attitudes towards P2P platforms emerged as the most significant predictor of behavioral intentions. Environmental benefits also had a significant impact, indicating a favorable disposition toward using these platforms.

Users' attitudes towards P2P platforms were identified as fundamental, mediating the relationship between perceived benefits and behavioral intentions, and being the strongest influencing factor. The study found that demographic factors such as gender, age, education, and income do not moderate the relationship between perceived benefits and attitudes. This suggests the market strategies should not rely on these variables for segmentation.

Theoretical contributions include integrating behavioral theory with customer-centered sustainability, enriching understanding of consumer behavior and sustainable marketing. Practically, the study offers insights for optimizing P2P platform design and marketing strategies, aligning them with consumer motivations. The findings are particularly relevant for policymakers and urban planners in developing megacities, providing a basis for promoting sustainable sharing practices.

The originality of the study lies in the inclusion of a non-segmented approach, considering the potential of older age groups and offering a comprehensive view of collaborative consumption. It contributes to understanding the shared market in developing countries, assisting in formulating policies to promote the sharing economy and sustainable development. The study suggests

adopting competitive strategies, such as pricing and local service, to compete in homogeneous markets. Future research should explore more diverse samples and investigate cultural and spatial aspects of sustainability in urban mobility, as well as perceptions of negative externalities and the relationship between environmental awareness and collaborative consumption.

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