The Moderating Role of Social Influence on E-Payment Adoption in Brazil

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Social influence has emerged as a critical yet underexplored moderator in technology adoption research. This study examines how social influence—stemming from government communication, social media, and mass media—shapes the adoption of electronic payment (e-payment) systems in Brazil. Drawing on the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), we analyze survey data from 180 Brazilian consumers. The results confirm that perceived usefulness and perceived ease of use both positively predict adoption intentions. Crucially, social influence plays a dual moderating role: it amplifies the effect of perceived usefulness on adoption intention while simultaneously attenuating the influence of perceived ease of use. These findings offer important theoretical and practical implications for promoting digital financial inclusion in emerging markets.

Keywords: social influence, e-payment adoption, technology acceptance model, perceived usefulness, perceived ease of use, emerging markets

INTRODUCTION

The rapid growth of electronic payment (e-payment) systems continues to reshape the global financial landscape, driven by advances in digital technology, increased smartphone penetration, and the expansion of internet access (Dahlberg et al., 2023; Gupta & Prusty, 2024). E-payment platforms enable fast, secure, and convenient transactions, reducing reliance on cash and improving financial efficiency for both consumers and businesses. As digital ecosystems mature, these systems are becoming central to economic activity, particularly in emerging markets where traditional banking infrastructure may be limited.

Brazil represents a compelling context for examining e-payment adoption. The country has experienced a rapid digital financial transformation, supported by a growing fintech sector and strong government initiatives such as the PIX instant payment system. These developments have accelerated financial inclusion and encouraged widespread use of digital transactions. Despite this progress, adoption is not uniform. Socioeconomic disparities, digital literacy gaps, and varying levels of trust in financial technologies continue to influence user behavior.

To understand these dynamics, researchers commonly rely on established theoretical frameworks such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). TAM emphasizes perceived usefulness and perceived ease of use as primary determinants of behavioral intention (Davis, 1989), while UTAUT extends this perspective by incorporating social influence and facilitating conditions (Venkatesh et al., 2003). Recent studies confirm that these models remain relevant but require contextual adaptation to capture the evolving nature of digital payment adoption (Alalwan et al., 2023).

Social influence has gained increasing attention, particularly in digitally connected environments. Social influence can stem from peers, social media, government messaging, and broader cultural norms, shaping how individuals perceive and adopt new technologies (Rana et al., 2023). In emerging economies like Brazil, where collective norms and institutional messaging play a strong role, these influences may significantly alter how users evaluate the benefits and usability of e-payment systems.

This study addresses a gap in the literature by examining how social influence moderates the relationships between perceived usefulness, perceived ease of use, and the intention to adopt e-payment systems in Brazil. By integrating insights from TAM and UTAUT with contemporary digital and social dynamics, this research offers a more nuanced understanding of technology adoption and provides practical implications for policymakers and financial service providers seeking to expand digital payment usage.

THEORETICAL BACKGROUND

Theories on Technology Acceptance

Research on the adoption of electronic payments (e-payments) draws on several well-established theoretical models that explore how individuals form intentions to use new technologies. Foundational perspectives trace back to social psychology, such as the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) (Ajzen, 1991; Fishbein & Ajzen, 1974), which focus on attitudes, subjective norms, and perceived behavioral control. These models have proven instrumental in explaining technology-related behaviors, including mobile services and internet-based applications (e.g., Taylor & Todd, 1995).

Building upon these foundations, scholars have introduced more specialized frameworks tailored to information systems. The Technology Acceptance Model (TAM) (Davis, 1989) emphasizes perceived usefulness (PU) and perceived ease of use (PEOU) as critical determinants of adoption intention. Researchers have extended the model over time to include additional dimensions, such as social influence and cognitive processes in TAM2, and user-specific factors like self-efficacy and enjoyment in TAM3 (Venkatesh & Davis, 2000). Similarly, the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) synthesizes elements from multiple models to highlight performance expectancy, effort expectancy, social influence, and facilitating conditions as key drivers of adoption.

Other notable frameworks have enriched our understanding of technology acceptance by examining different adoption phases or contextual nuances. For example, the Diffusion of Innovations Theory emphasizes the role of social systems and innovation characteristics, such as trialability and observability, in spreading new technologies. Research also underscores that the factors driving innovation adoption are dynamic and evolve as technologies mature and diffuse through markets (Waarts et al., 2002). Expectation-Confirmation Theory (Bhattacherjee, 2001) explains adoption and continued use by focusing on how users' expectations about a technology are confirmed or disconfirmed after initial use.

Together, these frameworks illuminate the multifaceted dynamics underlying e-payment adoption, each offering unique explanatory strengths. The Technology Acceptance Model (TAM) (Davis, 1989) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) are particularly

well-suited to user-centered and organizational contexts, whereas the Theory of Planned Behavior (Ajzen, 1991) and the Diffusion of Innovations Theory extend the analysis by offering broader behavioral and social insights. Nonetheless, scholars have underscored the need for contextual adaptations and theoretical integration to better capture the complexities of real-world adoption processes (Venkatesh et al., 2012; Oliveira et al., 2016). Against this backdrop, the present research primarily draws on TAM and UTAUT, given their emphasis on perceived usefulness, perceived ease of use, and social influence—constructs that are particularly salient for understanding how new e-payment systems gain traction.

Technology Acceptance Model (TAM) & Unified Theory of Acceptance and Use of Technology (UTAUT)

Among the pioneering models of technology adoption, the Technology Acceptance Model (TAM) remains one of the most influential in the Information Systems field (Davis, 1989; Lee et al., 2003). TAM proposes two principal beliefs that govern an individual's intention to adopt a system: Perceived Usefulness (PU), the degree to which using a technology can enhance an individual's performance or daily life tasks, and Perceived Ease of Use (PEOU), the degree of effort required to utilize the system effectively. These constructs shape Behavioral Intention (BI), a robust predictor of actual system use.

A wealth of empirical evidence illustrates TAM's explanatory power for diverse technologies, including e-payments (Gefen et al., 2003; Pavlou, 2003). Extensions to TAM, such as TAM2 and TAM3, integrate social influence (often as subjective norms) and other user-specific factors (Venkatesh & Davis, 2000). In e-payment contexts, perceived usefulness reflects the belief that digital transactions save time, reduce costs, and simplify financial management, while perceived ease of use reflects the user-friendly interfaces and straightforward procedures e-payment providers often advertise (Lai & Zainal, 2015). Together, these factors significantly influence whether individuals feel confident enough to adopt and continue using e-payments.

Recognizing the need for a more comprehensive framework, Venkatesh et al. (2003) developed the Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT synthesizes constructs from previous models (including TAM, TPB, and Innovation Diffusion Theory) into four main predictors of intention and usage: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. It further accounts for moderators such as age, gender, experience, and voluntariness of use (Venkatesh et al., 2003). The rapid expansion of fintech has introduced new business models and investment opportunities while simultaneously presenting regulatory and operational challenges for financial service providers (Lee & Shin, 2018).

By explicitly incorporating Social Influence, UTAUT addresses a dimension that was only indirectly recognized in the original TAM. This construct encompasses subjective norms, social pressure, and the role of status or image, thus capturing how norms and collective expectations can shape technology acceptance. In emerging economies or novel technology contexts, social influence can have a stronger impact, either encouraging or deterring adoption (Venkatesh et al., 2012). For e-payment systems specifically, social influence might arise from peer recommendations, state-led campaigns promoting cashless transactions, or community-level endorsement of digital finance.

Role of Social Influence in Technology Adoption

Social influence refers to the extent to which an individual's decision to adopt a technology is affected by others' perceptions, opinions, or behaviors, such as peers, family members, colleagues, or societal norms (Venkatesh et al., 2003). It is conceptually linked to subjective norms in the Theory of Planned Behavior (TPB) (Ajzen, 1991; Fishbein & Ajzen, 1974) and to the extended version of TAM (i.e., TAM2), where interpersonal interactions and cultural norms inform users' perceived usefulness and attitudes (Venkatesh & Davis, 2000). Social influence is particularly significant in collectivist or community-oriented settings (Hofstede, 2001). In such environments, the opinions of family, friends, and respected figures can substantially influence an individual's inclination to try or continue using e-payments (Cialdini & Goldstein, 2004).

Social influence also operates through broader communication channels, including mass media, social media, and official government announcements. These platforms can highlight benefits, like cost reductions or time savings, or address security concerns, thereby shaping public perceptions. In emerging markets, where trust in digital platforms may still be forming, social cues and normative pressures often play a pivotal role in encouraging or discouraging adoption (Feng et al., 2022; Eckhardt et al., 2009). The interplay between social influence and user perceptions thus offers a nuanced lens to understand why some individuals quickly embrace e-payment systems while others remain hesitant.

Brazil presents a compelling context for examining how social influence interacts with perceived usefulness and ease of use. As one of Latin America's largest economies, Brazil's fintech ecosystem has expanded rapidly, supported by government policies that promote financial innovation and cashless transactions. Moreover, Brazilian society places considerable value on interpersonal relationships, community ties, and collective decision-making (Hofstede, 2001). Social networks—including family groups, social media circles, and local communities—can act as powerful catalysts for behavioral change. Government-led campaigns further amplify normative pressures, as public endorsements and official regulations can create an environment where adopting e-payments is perceived as both beneficial and socially expected (Al-Hujran et al., 2015). These cultural and structural factors heighten the relevance of studying how social influence interacts with perceived usefulness and ease of use in shaping e-payment adoption.

HYPOTHESIS DEVELOPMENT

The Impact of PU and PEOU on the Intention to Use E-Payment Systems

Rooted in TAM (Davis, 1989), perceived usefulness (PU) reflects the belief that adopting an e-payment system will enhance one's performance or daily tasks. In the context of e-payments, when users believe e-payment systems offer practical benefits such as time savings, cost-effectiveness, and greater convenience, they are more likely to develop stronger adoption intentions. In emerging markets such as Brazil, digital solutions can address gaps in traditional financial services, making the perceived usefulness of e-payments especially relevant. Therefore, we propose the following hypothesis.

H1: *Perceived Usefulness (PU) positively influences the intention to use e-payment systems.*

Perceived ease of use (PEOU) is another core component of TAM, representing the degree to which a system is considered free of significant effort (Davis, 1989). When an e-payment platform has intuitive interfaces and streamlined processes, individuals are more likely to adopt it because they expect fewer barriers during setup and use. Even in relatively tech-friendly environments like Brazil, variations in education and technological infrastructure can influence how users perceive ease of use. Thus, we propose the following hypothesis.

H2: *Perceived ease of use (PEOU) positively influences the intention to use e-payment systems.*

Moderating Role of Social Influences

Social influences have long been recognized as a pivotal driver of technology adoption decisions (Venkatesh et al., 2003; Venkatesh et al., 2012). As noted above, in the context of e-payment systems, these influences come from myriad sources, including official state government communications, social media platforms, and mass media channels. Although each source can exert its own unique effects, we conceptualize them collectively as "social influences" that shape normative beliefs and perceptions of legitimacy (Fishbein & Ajzen, 1974). Social influences thus signal the extent to which a technology is socially approved or even expected within one's environment, thereby impacting how individuals weigh other adoption factors such as perceived usefulness and perceived ease of use.

Social Influences as a Positive Moderator of the Perceived Usefulness–Intention Relationship

We propose that social influences can magnify the strength of the PU-intention link (H1). Various channels—government-led campaigns touting the trustworthiness or societal value of e-payments, social media discussions showcasing peer satisfaction, or mass media coverage presenting expert endorsements—collectively convey that adopting e-payments is personally beneficial and socially desirable. For instance, widespread social media conversations can create bandwagon effects, where positive word-of-mouth validates individuals' belief that e-payments are genuinely valuable (Toole et al., 2012). Furthermore, consistent news coverage or word-of-mouth highlighting how e-payments reduce transaction fees or expedite financial tasks can bolster the perceived utility (Kawakami & Parry, 2013). As these messages become more ubiquitous and persuasive, perceived risks and uncertainties decrease, strengthening individuals' confidence that e-payments are useful and reinforcing the positive relationship between PU and intention to use e-payment systems. This is formally hypothesized as follows.

H3: *Social influences positively moderate the relationship between perceived usefulness and intention to use e-payment systems, such that the relationship is stronger at higher levels of social influence.*

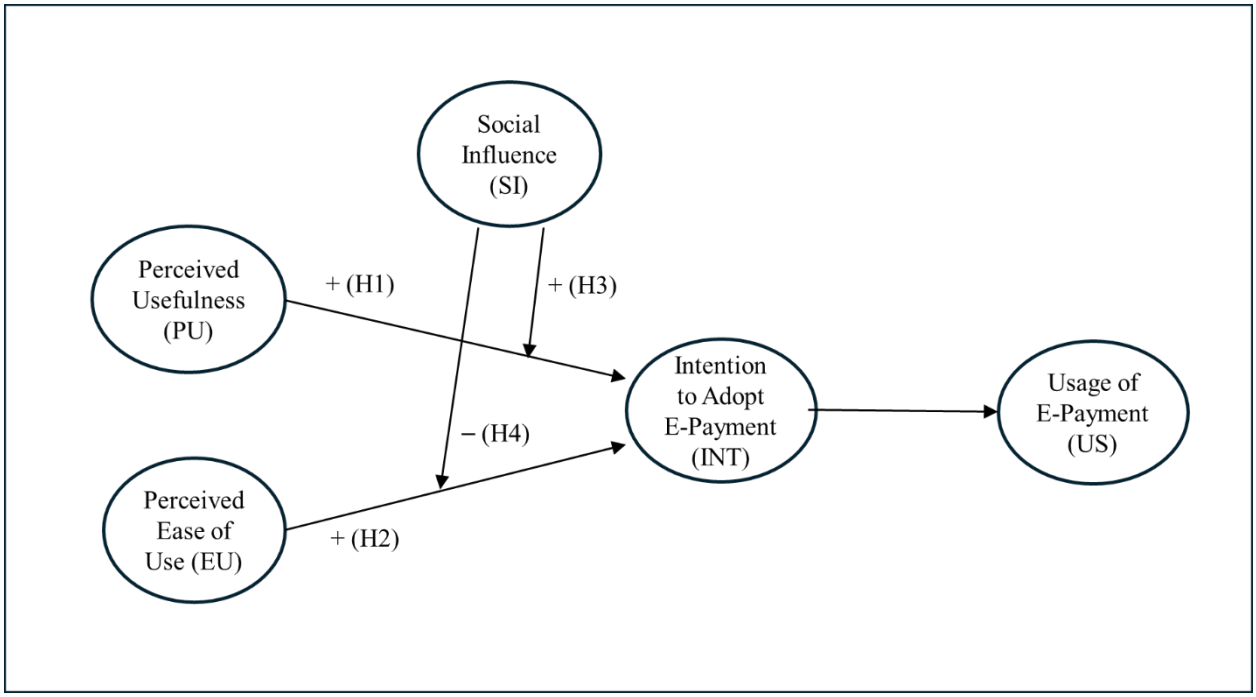
Social Influences as a Negative Moderator of the Perceived Ease of Use–Intention Relationship

As hypothesized in H2, when users perceive that learning and operating a system requires minimal effort, they are generally more inclined to adopt it. However, we posit that high levels of social influence may reduce the salience of this ease-of-use consideration. Specifically, when messages promoting or endorsing e-payment systems are pervasive and compelling—whether they originate from official government communications that emphasize the "national interest" in cashless transactions, viral social media posts that frame e-payments as the trend du jour, or mass media portrayals depicting e-payments as the inevitable future—individuals may feel a strong normative pull toward adoption (Eckhardt et al., 2009). In such contexts, the potential hurdles of learning or using the system become secondary. For example, individuals might adopt e-payment systems primarily to align with peer expectations or comply with perceived governmental directives. As a result, even if the system is not perceived as highly user-friendly, people may be more motivated by a desire to conform to societal norms or avoid missing out on collective benefits. Consequently, the positive link between perceived ease of use and intention to adopt becomes less pronounced when social influences are strong. Thus, we hypothesize this as follows.

H4: *Social influences negatively moderate the relationship between perceived ease of use and intention to use e-payment systems, such that the relationship is weaker at higher levels of social influence.*

Overall, these hypotheses underscore the dual impact of social influences on technology acceptance (see Figure 1). On the one hand, by emphasizing tangible benefits, they strengthen perceived usefulness. On the other hand, by creating powerful normative pressures, they diminish the importance of ease-of-use considerations. This nuanced understanding can guide policymakers, platform providers, and media outlets in designing communication strategies that capitalize on perceived utility while acknowledging that intense social pressures can sometimes overshadow usability concerns.

FIGURE 1
CONCEPTUAL MODEL



METHODOLOGY

We used a convenience sampling method to collect the data. In 2021, we uploaded a Portuguese survey instrument to Qualtrics and distributed it to friends and colleagues of our key contacts (two graduate students, a few Portuguese faculty members, a dentist, and a physician). We used email and social media to facilitate convenient sampling. This method yielded 180 valid responses from participants.

The instrument was structured into three distinctive sections. The initial section was dedicated to inquiries concerning attitudes and perceptions, assessed using 7-point Likert scales. The second section was designed to gauge the frequency of engagement by participants with diverse devices, software, activities, and items in the context of e-payment systems. This usage was measured via a 5-point Likert scale. This section covers monthly frequency, the extent of e-payment spending, total monthly expenditure through e-payment methods, and the proportion of monthly expenses attributable to e-payments. Since these usages are coded as an ordinal scale, they are highly correlated. A composite usage score was created by taking the average of the different usage scores. The final section collected demographic information to create participant profiles based on background characteristics, including age group, employment status, student status, educational background, gender, and income level.

As shown in Table 1, the valid cases were distributed among male (58.9%) and female (40.6%) individuals. The largest age group was 46–50 (n = 33, 18.3%). The average age was 44.92, with a standard deviation of 13.62. About 68.3% of respondents work full-time, with 18.9% unemployed, and 12.2% working part-time. Education levels are relatively high, with 99 respondents (55.0%) holding a postgraduate degree. About 49 (27.2%) respondents hold a college degree, and 31 (17.2%) have only a high school diploma. The high percentage of respondents with a master's or higher education may be explained by the fact that the sample was drawn from a distribution through a university professor, a dentist, a physician, and some graduate students.

TABLE 1
DESCRIPTIVE STATISTICS FOR DEMOGRAPHIC VARIABLES

Variables	Frequencies	Percentage	Mean	S.D.
Gender			0.4078*	0.493
Female	73	40.6		
Male	106	58.9		
Missing	1	0.6		
Total	180	100		
Age			44.92**	13.62
18–20	7	3.9		
21–25	18	10.0		
26–30	5	2.8		
31–35	14	7.8		
36–40	18	10.0		
41–45	23	12.8		
46–50	33	18.3		
51–55	19	10.6		
56–60	18	10.0		
61 and over	24	13.3		
Missing	1	0.6		
Total	180	100		
Work			0.748*	0.398
Unemployed	34	18.9		
Part-time	22	12.2		
Full-time	123	68.3		
Missing	1	0.6		
Total	180	100		
Education			15.87***	2.46
High School	31	17.2		
Higher Education	49	27.2		
Postgraduate	99	55.0		
Missing	1	0.6		
Total	180	100		
Income (USD)			9,088.57	5,810.16
1,000 or less	9	5.0		
1,001–2,000	13	7.2		
2,001–4,000	14	7.8		
4,001–6,000	29	16.1		
6,001–8,000	24	13.3		
8,001–10,000	16	8.9		

Variables	Frequencies	Percentage	Mean	S.D.
10,001–12,000	19	10.6		
12,001–15,000	19	10.6		
15,001–20,000	17	9.4		
20,001 and over	15	8.3		
Missing	5	2.8		
Total	180	100		

*Male = 0 and Female = 1; Full Time = 1, Part-time = 0.5, and Unemployed = 0
**Each category is coded to its mean age
***Each category is coded to the usual number of years required to complete the level of education

Measures

The measures for the constructs present in our study were each drawn (and some lightly adapted) from empirically validated scales from extant scholarship. Please see Table 2 for their original sources.

TABLE 2
MEASUREMENT CONSTRUCTS AND SOURCES

Constructs	Sources
Perceived Usefulness (PU)	Chan & Lu (2004)
Perceived Ease of Use (PEOU)	Venkatesh & Davis (2000); Moore & Benbasat (1991)
Social Influence (SI)	Venkatesh & Davis (2000); Venkatesh et al. (2012)
Intention to Adopt E-Payment (INT)	Park & Chen (2007); Venkatesh et al. (2012)
Usage of E-Payment (USAGE)	Rosen et al. (2013)

RESULTS

Measurement Model Evaluation

Before testing the model's structural relationships, we assessed the reliability and validity of each reflective construct in this study. The results are presented in Table 3. First, we assessed indicator reliability. Ideally, each item should load above 0.7, but the more liberal acceptance threshold of 0.6 was adopted as this is also commonly accepted in the literature (Chin et al., 1997). Only three items fell below the 0.7 threshold with loadings of 0.607, 0.614, and 0.699, and all items for all latent constructs were statistically significant. This finding confirms that the indicators were reliable and can be retained. Next, we tested the internal consistency reliability of the constructs using Cronbach's Alpha and composite reliability measures. It is suggested that both of these values exceed the 0.7 threshold to suggest healthy internal reliability of the measures. All constructs in the model exceeded this threshold for Cronbach's Alpha and composite reliability.

We also assessed the convergent and discriminant validity of our model constructs. Our AVE scores ranged from 0.544 to 0.779, and because all constructs had AVE values above 0.5, this provides evidence of convergent validity (Fornell & Larcker, 1981). To assess discriminant validity, we examined the heterotrait-monotrait (HTMT) ratios. If the true correlation values are all below 0.85, then this suggests discriminant validity. The HTMT scores ranged from 0.060 to 0.835, thus suggesting discriminant validity (Henseler et al., 2015). To assess for the presence of common method bias (CMB), we conducted Harman's single-factor test using all measurement items. Using SPSS (version 29), we selected the principal components dimension reduction technique, and the unrotated factor solution revealed that the first factor

accounted for 37.4% of the variance, well below the widely accepted 50% threshold, suggesting that CMB is unlikely to be a major concern in the present study (Podsakoff et al., 2003).

TABLE 3
INTERNAL CONSISTENCY OF MODEL CONSTRUCTS

Construct	Convergent Validity	Internal Reliability		Multicollinearity Assessment		Item Reliability	
	AVE	Composite Reliability (CR)	Cronbach's Alpha (CA)	Item	VIF	Loading	P-Value
Perceived Usefulness	0.544	0.904	0.879	PU_1	1.873	0.722	0.000
				PU_2	2.288	0.613	0.000
				PU_3	3.245	0.728	0.000
				PU_4	3.324	0.753	0.000
				PU_5	1.974	0.701	0.000
				PU_6	2.636	0.766	0.000
				PU_7	2.961	0.785	0.000
				PU_8	2.556	0.812	0.000
Ease of Use	0.615	0.905	0.874	EU_1	1.726	0.729	0.000
				EU_2	1.998	0.699	0.000
				EU_3	3.130	0.795	0.000
				EU_4	3.645	0.868	0.000
				EU_5	2.933	0.862	0.000
				EU_6	1.946	0.735	0.000
Intention to Adopt E-Payment	0.640	0.914	0.874	INT_1	1.795	0.748	0.000
				INT_2	2.396	0.810	0.000
				INT_3	1.766	0.716	0.000
				INT_4	2.699	0.813	0.000
				INT_5	3.517	0.890	0.000
				INT_6	2.286	0.811	0.000
Social Influence	0.779	0.913	0.868	SI_9	1.841	0.780	0.000
				SI_10	2.756	0.954	0.000
				SI_11	2.931	0.905	0.000
Usage of E-Payment	0.579	0.891	0.811	US_1	1.566	0.607	0.000
				US_2	2.483	0.712	0.000
				US_3	2.318	0.765	0.000
				US_4	2.328	0.822	0.000
				US_5	3.163	0.827	0.000
				US_6	2.610	0.832	0.000

Note. AVE = Average Variance Extracted; CR = Composite Reliability; CA = Cronbach's Alpha; VIF = Variance Inflation Factor.

TABLE 4
LATENT FACTOR CORRELATION MATRIX

	Ease of Use	Intention	Perceived Usefulness	Social Influence	Usage
Ease of Use	1	0.656	0.748	0.030	0.342
Intention	0.656	1	0.753	0.111	0.485
Perceived Usefulness	0.748	0.753	1	0.222	0.501
Social Influence	0.03	0.111	0.222	1	0.057
Usage	0.342	0.485	0.501	0.057	1

Hypothesis Testing

To test the study's hypotheses, a partial least squares-based structural equation modeling (PLS-SEM) approach was adopted utilizing SmartPLS (version 4) software. Specifically, we adopted the standard bootstrapping algorithm and specified it to run 5,000 subsamples, consistent with widely accepted thresholds (Hair et al., 2019). To assess potential multicollinearity, we examined variance inflation factor (VIF) scores, all below the commonly accepted threshold of 5.0, suggesting multicollinearity was not an issue (Henseler et al., 2014).

Hypothesis 1 (H1) predicted that the perceived usefulness of e-payment systems would positively impact the intention to use e-payment systems. H1 was supported ($\beta = 0.594$, $p < .001$). H2 predicted that perceived ease of use of e-payment systems would positively impact the intention to use e-payment systems, which was also supported ($\beta = 0.241$, $p = .007$). H3 predicted that social influences would positively moderate the relationship between perceived usefulness and intention to use e-payment platforms. However, this was only loosely supported as the moderation effect was marginally significant ($\beta = 0.220$, $p = .084$). Finally, H4 predicted that social influences would negatively moderate the positive relationship between perceived ease of use and intention to use e-payment systems, which was supported ($\beta = -0.216$, $p = .022$). Please refer to Table 5 for a complete list of all model path estimates and their corresponding significance values.

TABLE 5
MODEL PATH ESTIMATES

Path Tested	β	Standard Deviation (SD)	P values
EU_ → INT	0.241	0.09	0.007
EU → US	0.117	0.045	0.009
INT → US	0.485	0.075	0.000
PU → INT	0.593	0.113	0.000
PU → US	0.287	0.083	0.001
SI → INT	-0.027	0.072	0.702
SI → US	-0.013	0.034	0.696
SI x EU → INT	-0.217	0.097	0.026
SI x EU → US	-0.105	0.05	0.035
SI x PU → INT	0.22	0.127	0.083
SI x PU → US	0.107	0.064	0.096

Note. EU = Ease of Use; INT = Intention to Adopt; PU = Perceived Usefulness; SI = Social Influence; US = Usage; SD = Standard Deviation.

DISCUSSION

Summary of Findings

This study investigated the moderating role of social influence on e-payment adoption in Brazil, integrating constructs from two foundational theoretical frameworks. Specifically, the Technology Acceptance Model (TAM), which identifies perceived usefulness and perceived ease of use as primary determinants of behavioral intention (Davis, 1989), was combined with the Unified Theory of Acceptance and Use of Technology (UTAUT), which explicitly incorporates social influence as a key driver of technology acceptance (Venkatesh et al., 2003).

The results confirmed that both perceived usefulness (PU) and perceived ease of use (PEOU) significantly and positively shape users' intentions to adopt e-payment systems, consistent with prior TAM-based research. More notably, the findings revealed that social influence exerts a dual moderating effect on these relationships. On one hand, social influence amplifies the positive effect of perceived usefulness on adoption intention, suggesting that normative messaging from government, mass media, and social media reinforces individuals' beliefs about the practical value of e-payments. On the other hand, and critically, social influence was found to negatively moderate the relationship between perceived ease of use and behavioral intention ($\beta = -0.216$, $p = .022$). This means that when social influence is strong, ease of use's ability to predict adoption intention is significantly diminished. In other words, individuals exposed to strong normative pressures—such as government-backed campaigns or pervasive social media endorsements—tend to adopt e-payment systems regardless of whether they find the technology easy to use, suggesting that social conformity can override usability concerns in adoption decisions (Cialdini & Goldstein, 2004). Together, these findings underscore the complex, context-dependent role of social dynamics in shaping technology adoption behavior, particularly in emerging markets where institutional messaging and collective norms carry considerable weight.

Theoretical Contributions

This research extends technology adoption literature by refining the role of social influence beyond its traditional conceptualization in TAM and UTAUT frameworks. Prior studies primarily conceptualized social influence as a direct predictor of technology adoption (e.g., Venkatesh et al., 2012), whereas our study highlights its moderating effects. The positive moderation of PU suggests that widespread communication—whether from government initiatives, mass media, or social networks—reinforces individuals' perceptions of e-payment benefits, thus increasing their adoption intentions. Conversely, the negative moderation of PEOU implies that strong social influence may push individuals to adopt e-payment systems despite usability concerns, demonstrating the potential for social conformity effects (Cialdini & Goldstein, 2004).

Practical and Managerial Implications

For policymakers and financial service providers seeking to promote e-payment adoption, this study underscores the importance of strategically leveraging social influence. Government-backed campaigns, influencer endorsements, and social media advocacy should be harnessed to highlight the benefits of e-payment adoption, thereby strengthening the perceived usefulness of these systems. Additionally, these campaigns should incorporate efforts to mitigate perceived risks, such as cybersecurity concerns, to further boost confidence in digital transactions (Gefen et al., 2003).

However, caution must be exercised to ensure that usability remains a priority. If users adopt e-payment systems because of external pressures rather than ease of use, they may struggle to stay engaged and eventually abandon the technology (Bhattacherjee, 2001). Therefore, financial institutions should prioritize intuitive design, user-friendly interfaces, and educational initiatives to complement promotional efforts. Training programs, particularly for older or less tech-savvy consumers, could help sustain long-term adoption and satisfaction (Niehaves & Plattfaut, 2014).

Limitations and Future Directions

While this study provides valuable insights, certain limitations must be acknowledged. First, convenience sampling limits the generalizability of our findings, and we acknowledge the sample had some unusual characteristics, such as a disproportionately high number of respondents with higher levels of education than the general population. Future research should adopt broader, more representative sampling techniques to ensure applicability across different socioeconomic and demographic segments. Second, our study focuses primarily on external social influences such as media and government messaging; future studies could explore the impact of interpersonal influences, such as peer recommendations or family pressure, on e-payment adoption (Fishbein & Ajzen, 1974). Third, longitudinal research examining how these relationships evolve would provide deeper insights into the sustainability of e-payment adoption in Brazil (Venkatesh et al., 2003). Additionally, some theoretical findings of our study regarding the moderating effect of social influence on the relationship between perceived usefulness and intention to adopt e-payment should be interpreted with caution, since the effect was only marginally significant.

CONCLUSION

The findings of our study provide important insights into the determinants of e-payment adoption among those living in Brazil, particularly highlighting the dual role that social influence plays in shaping adoption behaviors. While perceived usefulness consistently emerges as a strong predictor of adoption, social influence's moderating effect underscores the need to consider external pressures in technology acceptance models (Venkatesh et al., 2003). The positive reinforcement of perceived usefulness suggests that governmental and media campaigns can effectively boost adoption rates by framing e-payment solutions as beneficial and indispensable (Davis, 1989).

Conversely, the negative moderation effect on perceived ease of use raises critical implications. This suggests that under strong social influence, users may adopt e-payment systems despite usability concerns, which could later lead to dissatisfaction and resistance to continued use (Kim et al., 2010). These findings align with prior research on the role of social norms in the adoption of technology, particularly in emerging markets where trust in digital systems remains a crucial factor (Irimia-Diéguez et al., 2023).

From a practical standpoint, our study suggests that policymakers and financial institutions should balance promotional strategies with improvements to user experience. Simply increasing social pressure for adoption without ensuring ease of use may lead to long-term disengagement. Future studies should further explore how these relationships evolve, particularly examining how sustained exposure to e-payment systems influences user satisfaction and continued adoption (Bhattacherjee, 2001).

In sum, this research advances the theoretical and managerial understanding of e-payment adoption by integrating social influence into the traditional TAM framework. As digital financial systems continue to gain traction globally, the interplay between perceived usefulness, ease of use, and social influence will remain central to shaping the future of financial technology adoption in emerging economies like Brazil.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Alalwan, A.A., Dwivedi, Y.K., Rana, N.P., & Williams, M.D. (2023). Consumer adoption of mobile payments: Extending the unified theory of acceptance and use of technology. *Information Systems Frontiers*, *25*(2), 451–470. https://doi.org/10.1007/s10796-021-10190-0

Al-Hujran, O., Al-Debei, M.M., Chatfield, A., & Migdadi, M. (2015). The imperative of influencing citizen attitudes toward e-government adoption and use. *Computers in Human Behavior*, *53*, 189–203. https://doi.org/10.1016/j.chb.2015.06.025

Bhattacherjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, *25*(3), 351–370. https://doi.org/10.2307/3250921

Chan, S.C., & Lu, M.T. (2004). Understanding internet banking adoption and use behavior: A Hong Kong perspective. *Journal of Global Information Management*, *12*(3), 21–43. https://doi.org/10.4018/jgim.2004070102

Chin, W.W., Gopal, A., & Salisbury, W.D. (1997). Advancing the theory of adaptive structuration: The development of a scale to measure faithfulness of appropriation. *Information Systems Research*, *8*(4), 342–367. https://doi.org/10.1287/isre.8.4.342

Cialdini, R.B., & Goldstein, N.J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, *55*, 591–621. https://doi.org/10.1146/annurev.psych.55.090902.142015

Dahlberg, T., Guo, J., & Ondrus, J. (2023). A critical review of mobile payment research. *Electronic Commerce Research and Applications*, *55*, Article 101175. https://doi.org/10.1016/j.elerap.2022.101175

Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008

Eckhardt, A., Laumer, S., & Weitzel, T. (2009). Who influences whom? Analyzing workplace referents' social influence on IT adoption and non-adoption. *Journal of Information Technology*, *24*(1), 11–24. https://doi.org/10.1057/jit.2008.31

Feng, Y.K., Claggett, J.L., Karahanna, E., & Tam, K.Y. (2022). A randomized field experiment to explore the impact of herding cues as catalysts for adoption. *MIS Quarterly*, *46*(2). https://doi.org/10.25300/MISQ/2022/16141

Fishbein, M., & Ajzen, I. (1974). Attitudes towards objects as predictors of single and multiple behavioral criteria. *Psychological Review*, *81*(1), 59–74. https://doi.org/10.1037/h0035872

Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Gefen, D., Karahanna, E., & Straub, D.W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, *27*(1), 51–90. https://doi.org/10.2307/30036519

Gupta, S., & Prusty, S. (2024). Does consumer empowerment influence e-payment systems adoption? A digital consumer-centric perspective. *Journal of Financial Services Marketing*, *29*(3), 1–15. https://doi.org/10.1057/s41264-023-00238-4

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2019). *Multivariate data analysis*. (8th ed.). Cengage Learning EMEA.

Henseler, J., Dijkstra, T.K., Sarstedt, M., Ringle, C.M., Diamantopoulos, A., Straub, D.W., & Calantone, R.J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, *17*(2), 182–209. https://doi.org/10.1177/1094428114526928

Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hofstede, G. (2001). *Culture's consequences: Comparing values*, *behaviors, institutions and organizations across nations*. International Educational and Professional (2nd ed.). Sage Publications.

Irimia-Diéguez, A., Velicia-Martín, F., & Aguayo-Camacho, M. (2023). Predicting FinTech innovation adoption: The mediator role of social norms and attitudes. *Financial Innovation*, *9*(1), Article 36. https://doi.org/10.1186/s40854-022-00434-6

Kawakami, T., & Parry, M.E. (2013). The impact of word-of-mouth sources on the perceived usefulness of an innovation. *Journal of Product Innovation Management*, *30*(6), 1112–1127. https://doi.org/10.1111/jpim.12049

Kim, C., Mirusmonov, M., & Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment. *Computers in Human Behavior*, *26*(3), 310–322. https://doi.org/10.1016/j.chb.2009.10.013

Lai, P.C., & Zainal, A.A. (2015). Consumers' intention to use a single platform e-payment system: A study among Malaysian internet and mobile banking users. *Journal of Internet Banking and Commerce*, *20*(1), 1–13.
Lee, I., & Shin, Y.J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, *61*(1), 35–46. https://doi.org/10.1016/j.bushor.2017.09.003
Lee, Y., Kozar, K.A., & Larsen, K.R.T. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems*, *12*(1), 752–780. https://doi.org/10.17705/1CAIS.01250
Moore, G.C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, *2*(3), 192–222. https://doi.org/10.1287/isre.2.3.192
Niehaves, B., & Plattfaut, R. (2014). Internet adoption by the elderly: Employing IS technology acceptance theories for understanding the age-related digital divide. *European Journal of Information Systems*, *23*(6), 708–726. https://doi.org/10.1057/ejis.2013.19
Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, *61*, 404–414. https://doi.org/10.1016/j.chb.2016.03.030
Park, Y., & Chen, J.V. (2007). Acceptance and adoption of the innovative use of smartphones. *Industrial Management & Data Systems*, *107*(9), 1349–1365. https://doi.org/10.1108/02635570710834009
Pavlou, P.A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, *7*(3), 101–134. https://doi.org/10.1080/10864415.2003.11044275
Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879
Rana, N.P., Dwivedi, Y.K., Hughes, L., & Alalwan, A.A. (2023). Social influence and m-payment adoption: A review and research agenda. *International Journal of Information Management*, *71*, Article 102642. https://doi.org/10.1016/j.ijinfomgt.2023.102642
Rosen, L.D., Whaling, K., Carrier, L.M., Cheever, N.A., & Rokkum, J. (2013). The media and technology usage and attitudes scale: An empirical investigation. *Computers in Human Behavior*, *29*(6), 2501–2511. https://doi.org/10.1016/j.chb.2013.06.006
Taylor, S., & Todd, P.A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, *6*(2), 144–176. https://doi.org/10.1287/isre.6.2.144
Toole, J.L., Cha, M., & González, M.C. (2012). Modeling the adoption of innovations in the presence of geographic and media influences. *PLOS ONE*, *7*(1), Article e29528. https://doi.org/10.1371/journal.pone.0029528
Venkatesh, V., & Davis, F.D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926
Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, *27*(3), 425–478. https://doi.org/10.2307/30036540
Venkatesh, V., Thong, J.Y.L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, *36*(1), 157–178. https://doi.org/10.2307/41410412
Waarts, E., van Everdingen, Y.M., & Van Hillegersberg, J. (2002). The dynamics of factors affecting the adoption of innovations. *Journal of Product Innovation Management*, *19*(6), 412–423. https://doi.org/10.1111/1540-5885.1960412