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Why do people pay for news? The mediating effect of price tolerance

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Introduction: Generative AI is transforming news production, and digital news platforms face challenges in sustaining user willingness to pay as they shift to subscription models. While perceived value affects subscription decisions, which aspects of value most influence price acceptance remains unclear. This study, therefore, examines whether functional, emotional, and social value are differentially associated with users' willingness to pay for digital news, and whether price tolerance acts as a psychological mechanism linking value perceptions to payment intentions.

Methods: An online survey was conducted with 357 Chinese users who evaluated their experiences with digital news content. We proposed eight hypotheses based on consumption value theory and equity theory and tested them using confirmatory factor analysis and structural equation modeling.

Results: Emotional and social value are positively and significantly associated with price tolerance, whereas functional value is not. All three value dimensions are positively associated with willingness to pay, and price tolerance shows an indirect effect association between emotional and social value and willingness to pay. These findings identify distinct pathways through which experiential value is associated with subscription intentions.

Discussion: Taken together, the results highlight that enhancing emotional resonance and fostering social identity may be more effective than improving functional utility alone in encouraging users to accept paywalls. The study offers theoretical insights into the value–tolerance–payment connection and provides practical guidance for designing sustainable digital news subscription strategies.

KEYWORDS

consumption value theory, digital news, equity theory, paywalls, willingness to pay

1 Introduction

The digital transformation of journalism has fundamentally reshaped how news is produced, distributed, and consumed. The widespread adoption of smartphones and social media has made news access ubiquitous and has substantially altered audience behavior (Newman et al., 2024; Ohme and Mothes, 2025). At the same time, the growing use of generative artificial intelligence has intensified concerns about content authenticity, further reinforcing the importance of trustworthy, human-produced journalism. Despite these developments, news organizations worldwide face serious financial challenges. Free content redistribution, declining advertising revenues, and shrinking print circulation have weakened traditional business models (Newman et al., 2024; Xu et al., 2025). These pressures are compounded by the high costs of digital transformation and consumers' persistent reluctance to pay for news (Arrese, 2016; Ohme and Mothes, 2025; Sabramedia, 2023).

In response to these challenges, scholars and practitioners have proposed two main strategies. The first involves government-led policies that require digital platforms to compensate publishers for the use of news content (Miljan, 2024). Examples include Australia's 2021 News Media and Digital Platforms Mandatory Bargaining Code (Shakil, 2023), Canada's 2023 Bill C-18 (Miljan, 2024), and the European Union's 2019 Copyright Directive and 2022 Digital Services Act (Riis, 2025). The second strategy focuses on paywalls, which require users to pay for access to digital news through publishers' websites or applications (Beseler et al., 2025). Inspired by the success of leading U.S. newspapers such as *The New York Times* and *The Washington Post*, researchers have examined various aspects of paywall design, including paywall type, user interest, and content exclusivity (Groot Kormelink, 2023; Pattabhiramaiah et al., 2022; Peiser, 2019).

Despite this progress, an important gap remains in understanding how consumer value and price tolerance (PT) shape willingness to pay (WTP) for digital news. Previous studies have not fully explained why users differ in their willingness to accept subscription prices, nor how different types of perceived value shape their payment decisions. In particular, little is known about the psychological mechanism underlying price acceptance and whether PT mediates the relationship between consumption value and WTP. To address this gap, this study investigates the following research question:

RQ1: How are functional, emotional, and social value associated with users' WTP for digital news.

RQ2: What role does PT play in these relations?

By addressing these questions, the study aims to clarify the differentiated associations between consumption value and payment behavior and to identify a key psychological pathway underlying purchase decisions in digital news environments.

Consumption value theory explains why consumers choose to purchase or avoid specific products by highlighting evaluations of functional, emotional, and social benefits (Borchgrevink-Brækhus and Moe, 2023; Tandoc and Seet, 2024; Tanrikulu, 2021). Identifying which dimensions of value are directly or indirectly associated with WTP is crucial for improving paywall performance. Equity theory further suggests that consumers evaluate fairness by comparing what they pay with the perceived value of their purchase; smaller perceived gaps lead to higher PT and stronger WTP (Adams, 1965; Lim, 2020; Nikhashemi et al., 2021). Thus, PT may function as a key psychological mechanism linking value perceptions to payment decisions.

Building on this theoretical foundation, this study develops an integrated model to investigate how social, emotional, and functional value are associated with PT and WTP for digital news. Using survey data from 357 Chinese subscribers to digital news outlets and structural equation modeling, we examine both direct and mediating associations. This study contributes to the literature in three ways. First, by integrating consumption value theory and equity theory, it proposes a refined framework of consumption value tailored to digital news contexts. Second, based on equity theory, we clarify the role of PT and show that functional value does not have a significant positive association with PT. Third, we reveal that PT shows an indirect effect between emotional and social value with WTP, offering

insights for future research on pricing and value communication strategies. Together, these findings enhance understanding of users' psychological motivations and provide practical guidance for sustaining digital news through paywall models.

2 Theory and hypotheses development

2.1 Paywall

A paywall is a pricing mechanism used by news organizations to charge users for accessing digital content, functioning as an access-control system for digital news (Pickard and Williams, 2014). Pattabhiramaiah et al. (2022) argue that paywalls help maintain content quality and credibility by providing publishers with a stable revenue source, enabling investment in editorial resources and brand building. However, Gabszewicz et al. (2007) note that paywalls may also lead to reduced online readership and lower advertising revenue, potentially creating a negative feedback loop in which lower audience engagement diminishes incentives to invest in quality journalism. Despite these concerns, many scholars suggest that consumers' initial resistance to paid content tends to diminish over time (Groot Kormelink, 2023; Pattabhiramaiah et al., 2022). Paywalls also assist advertisers by identifying highly engaged users with a stronger WTP, increasing the value of such audiences (Pattabhiramaiah et al., 2019).

2.2 Consumption value theory

Perceived value refers to a consumer's evaluation of the trade-off between the benefits and costs of a product relative to competing alternatives (Tanrikulu, 2021). Zeithaml (1988) defines perceived value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given." However, this definition has been criticized for being too simplistic. Consumer value theory, an extension of perceived value theory, is often used to study consumer perceptions because it considers utilitarian and hedonic aspects through a multi-dimensional approach (Sweeney and Soutar, 2001; Tanrikulu, 2021).

Sheth et al. (1991) presented a theory of consumption value based on customer decisions—whether to purchase or not, which product to select, and which brand to prefer. They suggested five dimensions of value: functional, social, emotional, epistemic, and conditional. Gentile et al. (2007) proposed a structural model of customer experience comprising six sub-dimensions based on Maslow's hierarchy of needs: utility, sensation, emotion, cognition, lifestyle, and association.

The present study further categorizes and reconstructs these six dimensions into three sub-dimensions: functional value (FV; utility and sensation), emotional value (EV; emotion and cognition), and social value (SV; lifestyle and association). SV refers to the social recognition or sense of belonging derived from paid content, such as sharing or identity. EV is the emotional fulfillment gained from paid content, including pleasure, happiness, and value recognition. FV refers to the practical utility and performance consumers derive from a product or service.

2.3 Equity theory: foundations for price tolerance

Equity theory posits that individuals engage in motivational and cognitive processes to weigh their sacrifices or investments (inputs) against rewards (outputs) and evaluate the results against similar experiences or situations (Adams, 1965). Nikhashemi et al. (2021) argue that consumers' perceptions of price fairness are influenced by feelings of fairness rather than rational evaluations. When there is a balance between what individuals pay and what they receive in return, they perceive the purchase as fair. Maxwell (2002) argues that perceived fairness is a key factor in purchase decisions, influencing consumers' emotions, attitudes, buying propensity, price perception, and WTP. Ferguson and Ellen (2013) point out that the comparison process between consumers leads them to believe that returns should be proportional to inputs. However, consumers are willing to pay a higher price when the product or service meets their expected demand (Nikhashemi et al., 2021). Thus, PT is an intuitive expression of consumers' perception of fairness—perceived fairness increases PT and willingness to pay higher prices, and vice versa.

2.4 Price tolerance

PT refers to the extent to which individuals accept variations in price or deviations from their internal reference price (Nikhashemi et al., 2021; Pandey et al., 2020). Greater price tolerance typically reflects lower price sensitivity and more stable consumer demand for products (Stangl et al., 2020). Research consistently shows that PT is shaped by both cognitive assessments and affective responses (Pandey et al., 2020). Consumers evaluate not only the objective price of a product or service but also the perceived fairness, value, and emotional attachment associated with it.

In digital news consumption, PT is particularly linked to fairness perception, as users assess whether the value of the information matches the subscription cost (Ferguson and Ellen, 2013). Moreover, PT functions as a psychological threshold: even if users perceive functional benefits, they may still reject higher prices unless EV or SV is strong enough to justify premium charges. Consistent with equity theory, PT is, therefore, not only a rational evaluation of “acceptable price” but also a reflection of whether users feel that the exchange relationship is fair (Nikhashemi et al., 2021). When the emotional engagement or social identity associated with a product is strong, users become more tolerant of deviations in its price.

Vázquez-Casielles et al. (2009) argue that PT largely depends on consumers' perceptions of value; when individuals believe that a purchase confers substantial functional or experiential benefits, they tend to accept a wider range of price increases. Bourdeau et al. (2002) and Lim (2020) find that customer satisfaction derived from emotional experiences—such as enjoyment, inspiration, and psychological comfort—can significantly increase price tolerance. These positive emotional responses reduce consumers' sensitivity to price fluctuations and, consequently, enhance their willingness to accept higher prices. Nikhashemi et al. (2021) propose that trust in the brand or information source also plays an important role, noting that high levels of trust diminish perceived risk and strengthen acceptance of price deviations. In addition, Goyanes (2020) points out that social motivations, including identity expression, status signaling, and group

belonging, can further elevate PT by making consumers willing to pay more to maintain or enhance their social standing. Collectively, these studies suggest that PT is shaped by a combination of functional evaluations, emotional experiences, and social motivations. Thus, the following hypotheses are proposed:

H1a: SV has a significant positive association with PT.

H1b: EV has a significant positive association with PT.

H1c: FV has a significant positive association with PT.

2.5 Willingness to pay

WTP is defined as the maximum amount an individual is willing to pay for a product or service, reflecting both economic valuation and psychological motivation (Zhang et al., 2018). Bourdeau et al. (2002) highlighted the influence of pleasure derived from perceived value, especially online, on purchase decisions. In the context of digital news, WTP encompasses prior purchasing behavior, current intention to subscribe, and the perceived monetary value of access to quality journalism (Beseler et al., 2025).

Gentile et al. (2007) and Sheth et al. (1991) argue that utilitarian value forms a fundamental basis for purchase decisions in the context of news, as consumers are more inclined to pay when news content supports decision-making, reduces uncertainty, or improves personal or professional efficiency. Xu et al. (2025) find that emotional experiences, such as enjoyment, inspiration, and feelings of trust or attachment toward a news organization, substantially increase WTP by creating psychological satisfaction and reinforcing perceived value. Goyanes (2020) further points out that social motivations contribute significantly to payment intentions, showing that consumers are more willing to pay when paid content enhances their social identity, signals status, or facilitates participation in a valued community. Taken together, prior research suggests that WTP is shaped not only by rational evaluations of functional utility but also by emotional and social dimensions that enrich the overall consumption experience. Thus, the following hypotheses are presented:

H2a: SV has a significant positive association with WTP.

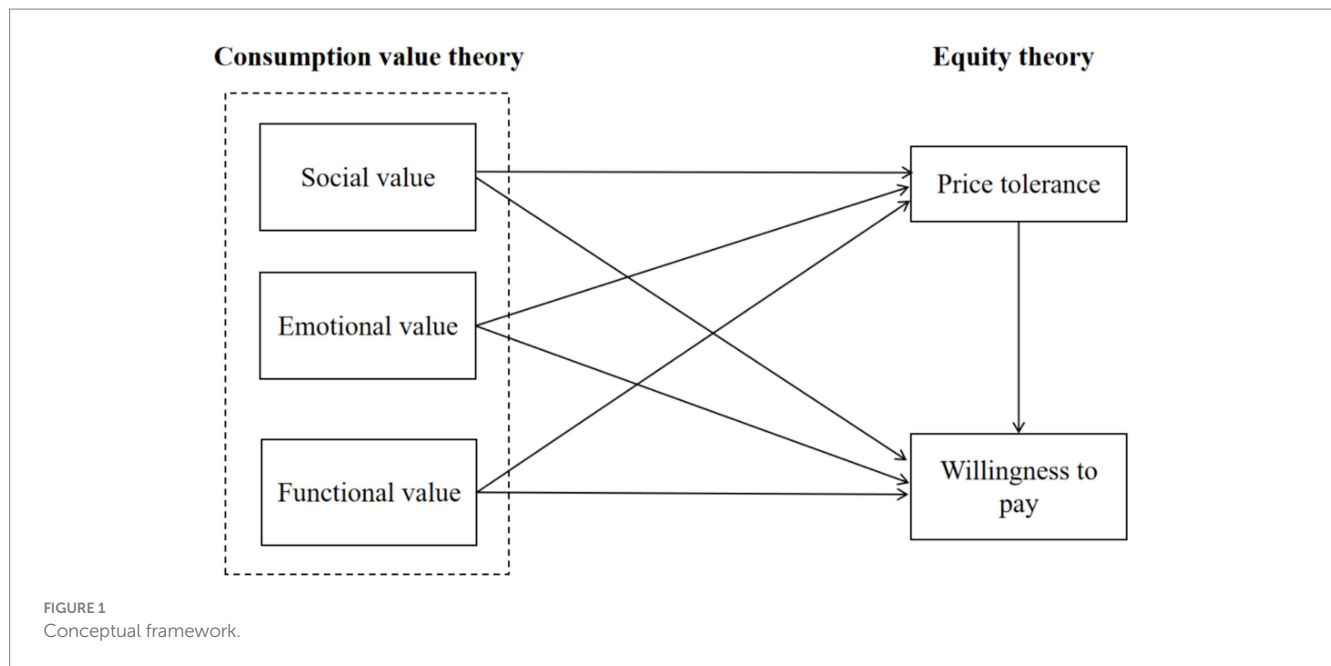
H2b: EV has a significant positive association with WTP.

H2c: FV has a significant positive association with WTP.

PT has been identified as a crucial predictor of WTP across various sectors (Nikhashemi et al., 2021; Pandey et al., 2020). Consumers with higher PT are more likely to accept subscription increases or premium pricing schemes. In the digital news context, PT acts as a psychological buffer: it reduces perceived sacrifice and increases acceptance of paywalls, particularly when consumers experience EV or SV from their interactions with news platforms. Therefore, propose the following hypotheses:

H3: PT has a significant positive association with WTP.

H4: PT mediates the association between experience value and WTP.



3 Methodology

3.1 Development of survey instruments

To empirically test the proposed research model (Figure 1), we designed a structured questionnaire using established measurement scales validated in prior studies. All items were adapted to fit the context of digital news consumption while retaining their conceptual validity. Respondents rated each item on a 5-point Likert scale (1 = “completely disagree”; 5 = “completely agree”). Table 1 summarizes the definitions, indicators, and literature sources of the key constructs.

3.2 Sample and data collection

Data were collected through Wenjuanxing¹, a widely used Chinese survey platform similar to Amazon Mechanical Turk. The platform has hosted more than 226 million questionnaires and accumulated over 18 billion responses (Chen et al., 2025).

We focused on Chinese respondents because the paywall model in China remains in an emerging and exploratory stage, offering valuable research opportunities. Respondents without prior subscription history or paid usage of digital news platforms (e.g., People’s Daily, Caixin) or knowledge platforms (e.g., Ximalaya, Dedao) were excluded.

A total of 424 responses were collected between April and May 2022. This period coincided with the COVID-19 pandemic, during which global demand for credible, high-quality news surged, making it a particularly meaningful period for examining purchase behaviors. After removing invalid responses, such as questionnaires with uniform answers, failure to detect attention checks, or exceptionally short completion times, a final dataset of 357 valid responses was obtained,

yielding an effective response rate of 84.2%. Demographic information is presented in Table 2.

The multi-item scales in this study were assessed by confirmatory factor analysis, and a conceptual model of the relations between SV (Cronbach’s $\alpha = 0.921$), EV (Cronbach’s $\alpha = 0.940$), FV (Cronbach’s $\alpha = 0.928$), PT (Cronbach’s $\alpha = 0.891$), and WTP (Cronbach’s $\alpha = 0.889$) was empirically tested. Structural equation modeling was applied to analyze hypothesized causal relationships among variables. We validated our research model using SPSS 27.0 and AMOS 26.0.

4 Results

4.1 Measurement checks: reliability, validity and common method bias

Composite reliability and convergent validity were assessed following established guidelines (Hair et al., 2021). All composite reliability values exceeded the recommended threshold of 0.70, and all average variance extracted values were above 0.50, confirming convergent validity (Fornell and Larcker, 1981; Henseler et al., 2015). Table 3 presents a matrix displaying composite reliability, average variance extracted, and correlation values of the key variables, demonstrating discriminant validity.

In addition, Harman’s single-factor test was conducted using SPSS (Version 27) to assess common method bias. The results showed that the total variance explained by factors with eigenvalues greater than 1 was 79.471%, with the first principal component accounting for 49.033%. The variance explained by the factors did not exceed the 50% threshold, indicating that common method bias was not a concern.

The results of the measurement model fitting are presented in Table 4. The fit indices demonstrate a good model fit, with the following values: $\chi^2/df = 1.239$ (<3); comparative fit index = 0.996 (>0.9); normed fit index = 0.978 (>0.9); Tucker–Lewis index = 0.994

¹ <https://www.wjx.com>

TABLE 1 The definitions and the measurement scales of focal variables.

Constructs	Definition	Indicators	Literature source
SV	Satisfying social needs and social identity from the news	1. Reading the news allows me to participate in discussions.	Sheth et al. (1991) and Sweeney and Soutar (2001)
		2. Knowing the news in time can make a good impression on others.	
		3. Reading the news makes it easier to find friends with the same interests.	
EV	Experiencing a positive mood and emotional value from the news	1. I like to read news that interests me; it makes me feel relaxed and happy.	Gentile et al. (2007) and Sheth et al. (1991)
		2. High-quality news content promotes my thinking.	
		3. I can get new insights and inspiration from quality news.	
FV	News has a certain functionality that fulfills work or life needs	1. News can help me make decisions at work.	Gentile et al. (2007)
		2. Reading the news regularly can increase my knowledge base and help me solve many problems in my life.	
		3. It fulfills my need for work skills.	
PT	Consumers are willing to pay more because of their own feelings and objective qualities	1. If Publisher A offers higher-quality news content than Publisher B, I think it is acceptable for A to have a higher subscription cost than B.	Stangl et al. (2020) and Vázquez-Casielles et al. (2009)
		2. If news Product A offers a better experience but is more expensive than Product B, I am willing to pay a higher price for a subscription.	
		3. If the subscription cost of the preferred publisher goes up by 3–10%, I think it is acceptable.	
WTP	Willingness to pay for digital news	1. I am willing to pay for access to high-quality news content.	Forsythe et al. (2006)
		2. I am willing to pay to watch valuable news content.	
		3. I think paying to watch high-quality news content is desirable.	

SV: Social Value; EV: Emotional Value; FV: Functional Value; PT: Price Tolerance; WTP: Willingness to Pay.

TABLE 2 Demographics of the research sample.

Measure	Item	N = 357	
		N	%
Gender	Male	189	52.94%
	Female	168	47.06%
Age	Under 18 years old	80	22.41%
	19–30 years old	193	54.06%
	31–50 years old	60	16.81%
	51 years old and above	24	6.72%
Occupation	Student	97	27.17%
	Employee	180	50.42%
	Freelance	61	17.09%
	Retired	19	5.32%
Education	Junior high school and below	51	14.29%
	Intermediate and high School	125	35.01%
	College and undergraduate	146	40.90%
	Postgraduate and above	35	9.80%
Average monthly income	Less than 2000 RMB	39	10.93%
	2001–5,000 RMB	34	9.52%
	5,001–10,000 RMB	159	44.54%
	10,001 RMB or more	125	35.01%

(>0.9); goodness of fit index = 0.964 (> 0.9); root mean square error of approximation = 0.026 (< 0.08) and standardized root mean square residual = 0.027 (< 0.08).

4.2 Preliminary analyses

Table 5 presents descriptive statistics, including means, standard deviations, and correlations of the research variables. The results indicate that SV, EV, FV, and PT are positively associated with WTP, with correlation coefficients of $r = 0.437$, $r = 0.614$, $r = 0.556$, and $r = 0.511$, respectively.

4.3 Assessment of the structural model

Next, this study tested the model hypotheses, with the test results presented in Table 6. For H1, the value of FV had no significant association with PT ($p = 0.071$ [>0.05]), partially supporting H1. H2 and H3 were fully supported. The R^2 of PT is 0.322, and the R^2 of WTP is 0.591, indicating that the model has strong explanatory power.

4.4 Analysis of mediation effects

The bias-corrected 95% CI (0.185, 0.426) for the total effect in the FV to PT to WTP path does not contain zero, indicating that a mediating effect may exist. Additionally, the bias-corrected 95% CI (0.167, 0.398) for the direct effect does not contain zero, confirming that the direct effect is significant. However, the bias-corrected 95% CI (−0.003, 0.075) for the mediating effect contains zero, indicating that the mediating effect does not exist. These results indicate that PT does not mediate the association between FV and WTP (Table 7).

The remaining two paths do not contain zero, indicating that PT partially mediates the association between experience value and WTP. Consequently, H4 is partially supported.

4.5 Results analysis

As shown in Figure 2, FV positively correlates with WTP but does not exhibit a significant association with PT. In contrast, EV and SV demonstrate strong positive associations with PT, and both display statistically significant indirect associations with WTP through PT. This pattern is consistent with the Kano model, which

TABLE 3 Descriptive statistics and discriminant validity.

Variables	CR	AVE	1	2	3	4	5
SV	0.930	0.816	0.903				
EV	0.941	0.841	0.423	0.917			
FV	0.929	0.813	0.399	0.545	0.902		
PT	0.892	0.733	0.338	0.544	0.396	0.856	
WTP	0.890	0.730	0.463	0.671	0.609	0.570	0.855

SV: Social Value; EV: Emotional Value; FV: Functional Value; PT: Price Tolerance; WTP: Willingness to Pay. The bold values are the square roots of average variance extracted.

TABLE 4 Fit indices of the measurement and structural models.

Fit index	Measurement model	Structural model	Recommended criteria
χ^2/df	1.239	1.239	<3
CFI	0.996	0.996	>0.9
NFI	0.978	0.978	>0.9
TLI	0.994	0.994	>0.9
GFI	0.964	0.964	>0.9
RMSEA	0.026	0.026	<0.08
SRMR	0.027	0.027	<0.08

TABLE 5 Descriptive statistics and correlations of the constructs.

Variables	<i>M</i>	<i>SD</i>	Correlation coefficients				
			1	2	3	4	5
SV	3.51	1.30	1				
EV	3.64	1.30	0.402**	1			
FV	3.55	1.36	0.379**	0.502**	1		
PT	3.68	1.20	0.321**	0.498**	0.360**	1	
WTP	3.58	1.14	0.437**	0.614**	0.556**	0.511**	1

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Bold values on the diagonal represent the correlation of each construct with itself (i.e., $r = 1$).

TABLE 6 Results of hypothesis testing.

Hypothesis	Path coefficients	CR	<i>p</i> -values	Support
H1a: SV → PT (+)	0.124	2.200	0.028 (*)	Yes
H1b: EV → PT (+)	0.430	6.638	0.000 (***)	Yes
H1c: FV → PT (+)	0.112	1.805	0.071	No
H2a: SV → WTP (+)	0.139	2.954	0.003 (**)	Yes
H2b: EV → WTP (+)	0.335	5.746	0.000 (***)	Yes
H2c: FV → WTP (+)	0.280	5.319	0.000 (***)	Yes
H3: PT → WTP (+)	0.228	4.289	0.000 (***)	Yes

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. SV: Social Value; EV: Emotional Value; FV: Functional Value; PT: Price Tolerance; WTP: Willingness to Pay.

classifies FV as a “must-be” attribute: users view functional utility as a basic expectation, and although its absence may reduce satisfaction, its presence alone does not substantially lessen price sensitivity.

Price tolerance shows a significant positive association with WTP, with a path coefficient of 0.228, underscoring its relevance in understanding payment-related evaluations. Although the data are cross-sectional and do not allow for strong causal claims, the results indicate that PT functions as a statistically detectable indirect pathway through which EV and SV relate to WTP. Notably, no such indirect statistical effect is observed for FV, suggesting that functional utility may shape WTP directly but does not contribute to users' acceptance of price variations.

Taken together, these findings imply that while FV establishes the baseline conditions for users' WTP, EV and SV play a more prominent role in broadening acceptance of pricing and enhancing perceived fairness. For providers of paid digital content, emphasizing emotionally resonant and socially meaningful content may, therefore, be more effective than relying solely on functional utility. Paywall strategies that foreground user value perceptions rather than focusing narrowly on price levels may further strengthen users' readiness to subscribe.

5 Discussion

Digital news performs several essential functional roles. It provides timely and credible information, reduces uncertainty, and informs users' personal and professional judgments. Prior research has consistently shown that such functional utility is central to why individuals consume news, and our results confirm its significant association with WTP. Users who perceive digital news as helpful, accurate, and efficient are more inclined to view subscriptions as worthwhile.

However, FV does not significantly influence PT. This pattern reflects the dual role of digital news in today's saturated information environment. While users depend on news for reliable information, functional quality is increasingly treated as a baseline expectation rather than a differentiating feature. This interpretation aligns with the Kano model, which characterizes functional attributes as “must-be” qualities. Their absence generates dissatisfaction, but their presence rarely enhances acceptance of higher prices. Moreover, the widespread availability of free news sources and aggregators has commodified core functional attributes, further limiting their role in shaping price tolerance. As a result, FV may motivate payment but does not

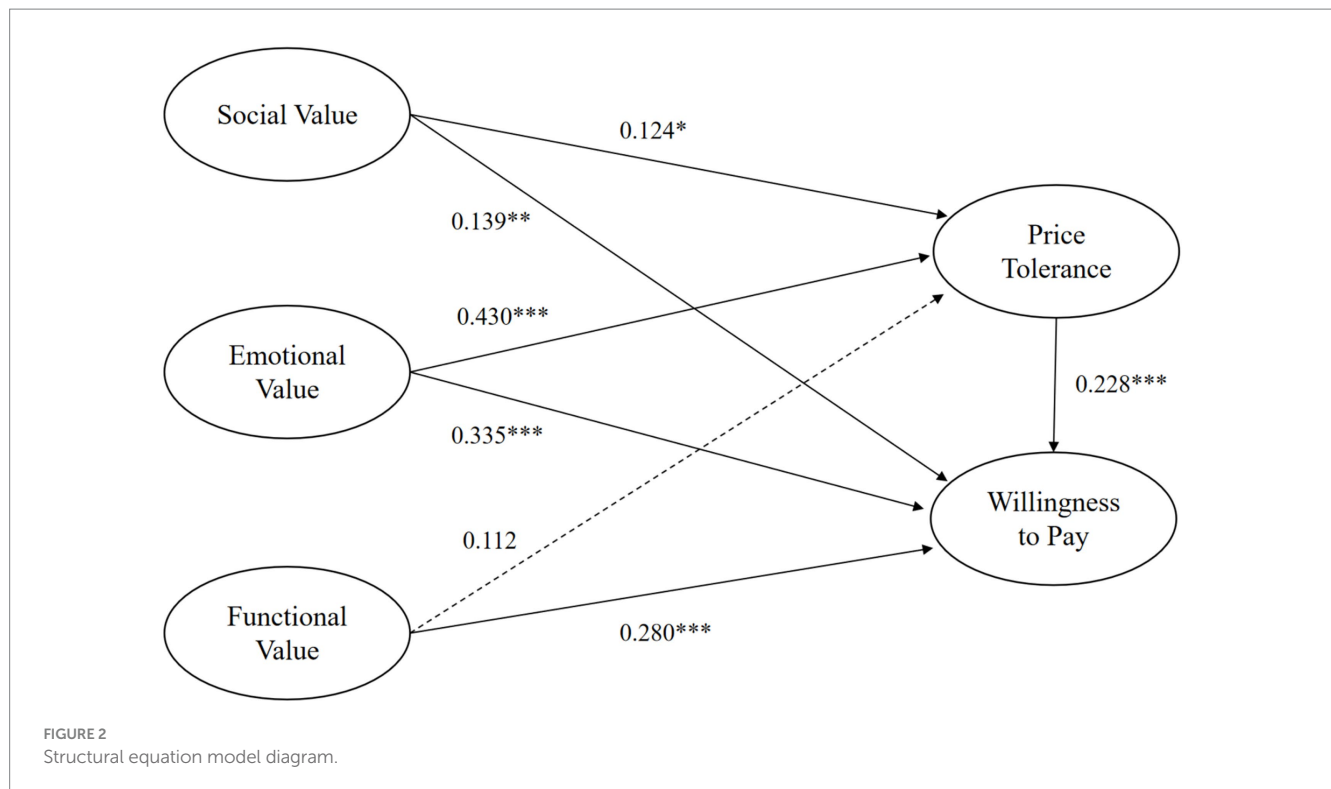


TABLE 7 Results of mediating effect test.

Path	Estimates	SE	Bias-corrected 95% CI	
			Lower	Upper
FV → WTP	0.305	0.062	0.185	0.426
EV → WTP	0.434	0.064	0.301	0.553
SV → WTP	0.167	0.050	0.069	0.268
FV → PT → WTP	0.026	0.019	-0.003	0.075
EV → PT → WTP	0.098	0.033	0.043	0.175
SV → PT → WTP	0.028	0.018	0.002	0.076

substantially reduce sensitivity to price once basic informational needs are met.

In contrast, EV and SV strongly relate to PT because they reflect aspects of the news experience that exceed basic informational utility. Emotional resonance, such as feeling inspired, engaged, or connected to societal issues, and social identity reinforcement, such as belonging to a community of informed readers, add layers of meaning that surpass functional need. These experiential dimensions shape users' fairness evaluations by fostering attachment, identity, and symbolic meaning. Integrating equity theory with digital trust further clarifies this process. Perceptions of credibility and reliability strengthen trust in news organizations and reduce price sensitivity. When users view a news source as trustworthy and emotionally or socially meaningful, they are more likely to perceive subscription fees as fair.

Taken together, these findings clarify the differential associations between news functions and purchase behavior. FV encourages users to pay because the content is useful, but EV and SV strengthen PT because the experience is meaningful. This distinction not only

reinforces our model's theoretical rationale but also highlights the importance for digital news organizations to balance informational accuracy with emotional engagement and social relevance. Together, these findings suggest that PT reflects more than utilitarian assessment. It emerges from a broader evaluative process involving fairness, trust, and experiential engagement. This perspective extends equity theory in digital news contexts and contributes to ongoing debates on sustainable journalism and audience monetization.

These findings should be interpreted with caution given the context of data collection. The survey took place during the strict COVID-19 lockdown, a period marked by elevated anxiety and unusually strong dependence on credible news sources. Although these circumstances limit the extent to which the findings can be generalized to non-crisis settings, they also offer a rare opportunity to observe value perceptions and payment intentions when information needs are particularly acute. At the same time, the underlying psychological mechanisms we identify especially the influence of emotional and social value on fairness perceptions and WTP remain relevant beyond the crisis context.

5.1 Theoretical implications

This study contributes to the understanding of how perceived value and fairness shape consumer behavior in digital news markets. The results challenge the assumption that audiences are inherently unwilling to pay for online news. The relatively high WTP observed during the COVID-19 pandemic suggests that the main barrier lies in value communication and pricing strategies, rather than in user resistance itself. First, by distinguishing among FV, EV, and SV, the study refines the application of perceived value theory and experience value theory in the digital news context. The results show that while

FV is strongly associated with WTP, EV and SV are more strongly linked to PT. These results suggest that different value dimensions operate through distinct psychological pathways, which advances theory by differentiating utilitarian and experiential value mechanisms in subscription decisions.

Second, the study highlights PT as showing a statistically significant indirect effect linking emotional and social value to WTP. Prior research has treated value and payment relationships primarily as direct effects, whereas our findings suggest that users' acceptance of pricing is shaped not only by perceived value but also by judgments of fairness and affective evaluation. Identifying this indirect effect contributes to a more nuanced understanding of how experiential engagement relates to payment intentions.

Third, the study challenges the assumption that FV uniformly drives both payment intention and price acceptance. Consistent with the Kano model, FV behaves as a "must-be" attribute: it establishes the baseline conditions for WTP but does not broaden PT. This insight deepens theoretical models of purchase behavior in the context of digital content by demonstrating that functional utility alone does not enhance users' tolerance for higher prices. Rather, emotional resonance and social identification play a central role in shaping digital news consumption.

5.2 Practical implications

This study's findings hold several implications for digital news organizations seeking to optimize subscription strategies. First, functional utility, such as accuracy, timeliness, and relevance, remains essential for encouraging users to subscribe. However, because functional value does not meaningfully increase PT, relying solely on information quality may be insufficient for sustaining paywalls in a competitive market.

Second, the strong associations between emotional and social value and PT suggest that subscription models may benefit from emphasizing content that fosters personal relevance, emotional engagement, and social meaning. Story-driven reporting, human-centered narratives, and socially oriented content can cultivate deeper psychological involvement, which is associated with greater acceptance of subscription prices.

Third, platforms can increase social value by building interactive communities, enabling member-only discussions, and offering exclusive events or content tiers. These features reinforce user identity and belonging, encouraging loyalty and greater price tolerance.

Finally, because PT reflects users' fairness perceptions, transparently communicating pricing rationales, such as explaining how subscription revenue supports independent journalism, may enhance acceptance of paywalls. Instead of competing solely on price, platforms may benefit from positioning subscriptions as investments in trustworthy, meaningful journalism.

5.3 Limitations and future research

This study was conducted during the COVID-19 pandemic, a period that likely heightened anxiety, increased reliance on digital news, and elevated WTP. As such, the generalizability of the findings to non-crisis contexts should be approached with caution. Future

research should replicate the study using data collected during non-crisis periods or compare crisis and non-crisis contexts to assess the stability of value perceptions, PT, and payment intentions.

Another limitation concerns the cross-sectional nature of the data, which restricts the ability to draw strong causal conclusions about the relationships among perceived value, PT, and WTP. Although the structural model identifies statistically significant indirect associations, longitudinal or experimental designs would be needed to establish temporal ordering and more robust causal pathways.

In addition, this study relies exclusively on Chinese respondents, reflecting the institutional and market conditions of China's emerging digital news paywalls environment. While this context provides valuable insights, the findings may not be directly generalizable to other cultural or media systems. Although the survey instruments were adapted from established scales and showed satisfactory reliability and validity within the present sample, their applicability across different countries and populations remains uncertain. Future research should therefore conduct cross-national and cross-cultural validation and include more diverse demographic groups to examine whether the observed relationships among SV, EV, FV, PT, and WTP hold across different cultural, economic, and institutional contexts. Further investigation into the cognitive, affective, and social components of emotional value would also help clarify the generalizability of these mechanisms and support the development of more enduring user relationships in the global digital news ecosystem.

Data availability statement

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

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

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

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