Users' Behavioral Intention and Adoption of Mobile Shopping Applications on the Smartphone Platform

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Abstract.

Research background: We draw on a substantial body of theoretical and empirical research on users' behavioral intention and adoption of mobile shopping applications on the smartphone platform globally,

Purpose of the article: We inspected, used, and replicated survey data from eMarketer, Adobe, Bizrate Insights, Econsultancy, eMarketer, and Retail Dive, performing analyses and making estimates regarding smartphone retail m-commerce sales in the U.S. (\$), top reasons EU consumers use smartphones in stores, and activities EU smartphone/tablet owners have done using apps on their smartphone/tablet in the past month.

Methods: Structural equation modeling was used to analyze the data and test the proposed conceptual model.

Findings & Value added: Mobile payment is a user-oriented manner of finalizing transactions as a result of the growing fashionableness of smartphones and the advancement of associated technologies. Superior ubiquity of mobile devices and swift mobile internet access result in higher quality offers and higher degrees of adoption of smartphones in commercial operations. Mobile retailers can raise the pool of prospective mobile purchasers by selecting individuals who are more knowledgeable in online buying and smartphone adoption. Consumers at a preliminary mobile shopping readiness stage allocate more relevance to omnipresence when compared with the habit in determining purchase intentions. As mobile consumers download and employ more applications, they confront the diminishing expenditures of acquiring further software.

Keywords: *mobile; shopping; application; smartphone; behavior*

JEL Classification: *E24; J21; J54; J64*

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1 Introduction

Mobile payment is a user-oriented manner of finalizing transactions as a result of the growing fashionableness of smartphones and the advancement of associated technologies. Consumers' practical knowledge of employing computers in financial operations [1] considerably influences their purposes to adopt mobile payment, leading to the partial mediating consequences of perceived practicality, perceived effortlessness in utilization, congruity, risk, and privacy issue, in the link between Internet practice and the use of mobile payment [2]. Smartphone self-reliance, mobile-specific creativity, mobile consumers' data privacy issues, and personal affinity for mobile devices are the psychological factors having the most relevant impact on mobile consumer behavior [3].

2 Conceptual Framework and Literature Review

Consumers at a preliminary mobile shopping readiness stage allocate more relevance to omnipresence when compared with habit in determining purchase intentions, and the reverse is valid for the consumers being at a sophisticated stage. Habit regulates the impact of omnipresence and thus its significance in influencing purpose declines [4] as such behavior takes a more recurrent character. To stimulate users to regularly employ their smartphones to inspect mobile retailers' websites, the latter should organize various contests and promotions, supply coupons, and direct advertising strategies via mobile channels. Mobile retailers should raise their operations in online shorefronts as mobile channels supply user-friendly access [5], thus boosting mobile shopping occurrences, and should give more attention to making the mobile shopping practice as effortless as possible, also bringing to light its advantages [6].

As mobile consumers download and employ more applications, they confront the diminishing expenditures of acquiring further software: the greater the amount of non-shopping applications consumers download and install, the more significant number of such software they will have. If consumers browse non-shopping applications repeatedly and excessively, they will not have as much time for shopping applications [7] and therefore they may own a smaller amount of such software. Practical knowledge in online buying can cut down learning expenses associated with mobile purchasing [8], which can boost the amount of shopping applications being employed for mobile acquisitions. Previous experience alleviates concerns over associated activities, as proficient consumers have grasped how to deal with such issues. Mobile practical knowledge may relieve mobile consumers of comparable concerns with reference to mobile buying across shopping applications. Online customers who have superior purchase purposes are presumably to spend more time on virtual shopping sites. Consumers who browse mobile shopping applications more intensely tend to get involved in mobile buying and make mobile purchases employing a superior amount of such software [9].

3. Methodology and Empirical Analysis

We draw on a substantial body of theoretical and empirical research on users' behavioral intention and adoption of mobile shopping applications on the smartphone platform globally. We inspected, used, and replicated survey data from eMarketer, Adobe, Bizrate Insights, Econsultancy, eMarketer, and Retail Dive, performing analyses and making estimates regarding smartphone retail m-commerce sales in the U.S. (\$), top reasons EU consumers use smartphones in stores, and activities EU smartphone/tablet owners have done using apps on their smartphone/tablet in the past month. Structural equation modeling was used to analyze the data and test the proposed conceptual model. Survey method: The

interviews were conducted online and data were weighted by five variables (age, race/ethnicity, gender, education, and geographic region) so that each country’s sample composition reliably and accurately reflects the demographic profile of the adult population according to the country’s most recent census data. Sampling errors and test of statistical significance take into account the effect of weighting. Stratified sampling methods were used and weights were trimmed not to exceed 3. Average margins of error, at the 95% confidence level, are +/-2%. For tabulation purposes, percentage points are rounded to the nearest whole number. The precision of the online polls was measured using a Bayesian credibility interval. An Internet-based survey software program was utilized for the delivery and collection of responses.

4. Results and Discussion

Core self-evaluations, online consumer compliance, and social identity favorably impacts the smartphone users’ reactions, positive emotions beneficially shapes user trust [10], and confidence thoroughly influences the users’ purpose to shop for paid apps [11]. Flow operates as a complete facilitator between perceived usefulness and attitude [12], being relevantly associated with attitude and purchase intention. Grasping how flow conveys individuals’ mobile shopping purpose may assist online firms in devising adequate marketing strategies [13]. (Table 1)

Table 1 Activities EU smartphone/tablet owners have done using apps on their smartphone/tablet in the past month (%)

	Gender		Age		
	Male	Female	18–34	35–54	55+
Used a mobile retail app to look for more information about a product or a service	60	62	65	63	54
Used a mobile retail app to buy a product or service	54	58	62	56	50
Used a mobile wallet app to pay in-store	30	34	44	35	17
Used a grocery app	28	32	39	34	17
Used a shared economy service app	24	28	36	26	16
Used a meal kit subscription service app	10	14	18	14	4
None of the above	24	20	17	20	29

Sources: eMarketer; Bizrate Insights; our survey among 4,400 individuals conducted May 2020.

Presence is an indispensable constituent in grasping consumers’ behavior [14] in online settings. Telepresence favorably impacts individuals’ self-determination and stickiness [15], whereas social presence beneficially shapes their relatedness and stickiness. The latter facilitates both the link between self-determination and buying purpose, and the one between relatedness and buying purpose [16]. (Table 2)

Table 2 Smartphone retail m-commerce sales in the U.S. (\$)

	billions	% change
2018	148.08	43.7
2019	204.06	37.4
2020	270.36	31.6
2021	347.11	28.1
2022	435.04	25.2

Sources: eMarketer; our 2020 estimates.

The essential driving forces of employing mobile payment services comprise perceived practicality, promotional offers, social acceptance [17], and convenience. Main obstacles to user adoption of mobile payment services are absence of confidence, insufficient prospects for utilization, intricacy, and habits related to cash payment [18]. (Table 3)

Table 3 Which of the following have you employed as part of your attempts to optimize for mobile (company respondents, %)?

Responsive design	72
Mobile-optimized website	70
Mobile application(s)	62
Mobile-optimized email	50
Adaptive design	32
None of the above	19

Sources: Econsultancy; Adobe; our survey among 4,400 individuals conducted May 2020.

Superior ubiquity of mobile devices and swift mobile internet access [19] result in higher quality offers and higher degrees of adoption of smartphones in commercial operations. Personalization and user engagement [20] are powerful antecedents of the purpose to adopt m-commerce [21]. (Table 4)

Table 4 Top reasons EU consumers use smartphones in stores (%)

	Mobile-first users	Desktop-first users
Compare prices	52	59
Compare products	48	54
Search for in-store coupons and discounts	40	49
Read product reviews	42	44
Review their shopping list	43	37
Take photos	40	40

Sources: Retail Dive; our survey among 4,400 individuals conducted May 2020.

5. Conclusions and Implications

Mobile retailers can raise the pool of prospective mobile purchasers by selecting individuals who are more knowledgeable in online buying and smartphone adoption [22], and have a superior amount of non-shopping applications but spend not as much time on them. Digital practice and the predisposition to employ non-shopping applications are instrumental in the ownership of shopping applications, and mobile buying is chiefly determined by digital proficiency and mobile browsing behavior [23] for purchase applications. Knowledgeable consumers of smartphones may be exposed to a superior amount of applications and their advantages, perceiving decreased risks and outstanding benefits from downloading applications and owning a higher quantity of shopping applications. Individuals accomplished in online buying have diminished learning expenses while mobile shopping as they experience comparable decision phases [24] and can employ data they have preserved online. At the buying stage, users have the intention to purchase through a mobile application when commodity features [25] and site attributes correspond with their requirements [9].

Author contributions

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

Conflict of interest statement

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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