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POSITIVE ATTITUDES AND LOW ANXIETY DRIVE DIGITAL PAYMENT USE AMONG INDIAN OLDER ADULTS

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Abstract

The adoption of digital payment systems is influenced by a range of factors, including individual attitudes, anxiety levels, self-efficacy, and age. The present study empirically examines the moderating role of attitude, anxiety, self-efficacy, and uncertainty about aging on the relationship between UTAUT model key determinants and older adults' intention to use digital payment applications. A telephonic survey was conducted to collect data from 138 older adults across the Indian state of Tamilnadu. Study findings show that older adults with a positive attitude towards using technology believe that digital payment applications are likely to be useful and easy to use, whereas high anxiety levels consider it less likely to be useful. Uncertainty about aging did not show any significant impact over the key determinants of the UTAUT model on behavioural intention. Facilitating environments enhance the adoption of digital payment applications provided requisite facilities and support (technical and family) available to older adults. Low self-efficacy moderates the relationship negatively to performance expectancy and facilitating conditions on behavioural intention.

Keywords:

Older Adults, Technology Acceptance, Digital Payments, UTAUT Model, Elders and Technology

1. INTRODUCTION

It has been about six decades, the devisal of digital payment technology initially contemplated for business-to-business transactions and is now speared across the top and sides of the people's daily needs. However, in this day and age after COVID-19, most of the commercial transactions, covering urban to rural, emigrated to digital mode, and the growth experienced by digital commerce and mobile payments in the Indian market is remarkable [1]. By 2026, it is estimated that the digital payment market in India will reach 10 trillion dollars, which is a threefold increase [2]. Owing to technology, it has significantly contributed to the emergence of the digital ecosystem in contemporary times, particularly in the financial sector. In India, during 2022-23, three-quarters of the retail segment transactions were driven by the Unified Payments Interface (UPI), as reported in 'The Indian Payments Handbook–2022-27.' It is predicted that UPI will account for 90 percent of total transactions in the next five years.

India's visionary program, aimed at transforming society and building a knowledge and digital economy, called 'Digital India.' It promotes cashless transactions through various digital modes, contributing to the accelerated growth of the digital payments system in India. It is believed that the growth of digital payments in India will be driven by the following factors: convenience for users at their own pace, digitization of businesses to support the nation's digital vision, ease of making cross-border payments, and the increased need for contactless, safe, and hygienic transactions during the pandemic. According to a study by Statista, it was reported that up to 70 percent of the respondents up to the age of 44 years use digital payment services frequently (daily and several times a week) compared to the other age groups of 45 to 54 years and above 55 years. Among respondents above 55 years of age, around 50 percent use digital payment services occasionally (several times a month), whereas, it is noted that only six percent of respondents above 55 years of age group use digital payment services on a daily basis [3]. The increasing popularity of digital transactions and the necessity of digital payments have led the 'Digital India' program to envision catering to various segments of people and transforming businesses into the digital market. Moreover, it is recognized that the growth of the digital payment market requires not only the transformation of businesses into the digital realm but also the requisite knowledge and ability to utilize banking services. This can be achieved through the financial inclusion of all stakeholders not only indicating geographically but also demographically.

The emphasis on financial inclusion will pave the way for inclusive and sustainable economic development [4]. Financial inclusion supports the nation's sustainable development [5]. In India, it is anticipated that every household in the Indian population should benefit from financial inclusion, which is achieved through one of the Indian government's promising scheme 'Pradhan Mantri Jan Dhan Yojna [6]. In addition, 'JAM trinity', Jan Dhan, Aadhar, and Mobile; interconnecting bank account, mobile number and aadhar (unique identification number for Indian citizens) for direct benefit transfer of cash to the intended beneficiary", initiative facilitated the beneficiaries to transform account holders for digital participation [7]. Nevertheless, it is not merely an individual opening a bank account that fulfills the idea of financial inclusion and sustainable development. Rather, it also depends on how well-equipped and knowledgeable they are to avail themselves of and participate in various banking services offered by the financial institutions to its stakeholders across the country [8].

Despite the stakeholder's readiness towards the digital system for their financial transaction needs, the demand has increased for the individuals to shift from cash-based transactions to digital modes of payment for their routine buying needs. Many studies have examined the factors influencing the adoption of digital payment systems focused on consumers [9]–[13], mobile services [14], merchants [15], specific cohorts and diverse geographical regions [16] [17]. In addition, meta-analysis studies have been conducted to identify the range of variables that influence the users adoption of mobile payment technology [14] [18]–[20]. The Government of India has been venturing through multiple approaches [21], including bank initiatives, knowledge camps and technology-based services, to reduce financial exclusion. For a comprehensive financial inclusion, digital services offered by financial institutions should reach their intended targets. Age needs to be considered crucially to cater across different age groups. Younger adults demonstrate a higher level of comfort with the digital services offered by banks and other financial

institutions, whereas older adults tend to have more active accounts and more savings compared to younger adults [22].

After the proliferation of technology, financial institutions extended its several services to the stakeholders at a massive pace. The banking industry has transformed its functions and services through self-service channels. In the context of the transformation from traditional banking to digital banking, it is likely to be a challenge for financial institutions in the next few years to provide inclusive services that cover different age groups. In the face of having cross-sectional stakeholders to be served at their service, the demographic characteristics plays a vital role to achieve their service inclusively. In this regard, age becomes a crucial factor in achieving 100 percent financial inclusion, and studying the age-wise inclusive characteristics fulfilled in the realm of digital financial transactions is the need of the hour. Due to the decrease in fertility rates combined with increased longevity in India, the population of people aged 60 years and above is projected to reach 227.4 million by 2036 (i.e., within a span of 15 years between 2011 and 2036), which represents a more than two-fold rise [23]. Enabling these elderly age cohorts for the adoption of technology to utilize the digital services is going to be the most important challenge for the financial sector in the upcoming years. During their later life, by virtue of aging, older adults could experience a series of difficulties associated with their independent functioning, physical and mental weakness, and social isolation.

A psychological framework that considers the individual differences, cultural contexts, and personal preferences to study the information needs, information seeking strategies, emotional relevance, and social support among individuals, is Theory of Motivated Information Management (TMIM) [24]. As it primarily addresses decision-making in the health communication context, it could be related with the older adults to cope with the situations that are uncertain (using technology for daily needs) due to aging. This apprehension helps to understand the specific needs of older people to access the suitable resources, support systems towards the technology adoption [25]. The motivation that has been guided externally undercuts the prevailing impulse one has [26], prevents the acceptance of technology [27]. In the context of aging, especially with few older people, fulfilling their financial requirements for daily needs requires external support. Intention to use technology significantly affected by the satisfaction of the user which is related to the usefulness of technology they intend to use [28].

The present study attempts to examine the level of acceptance of technology among older adults using the Unified Theory of Acceptance and Use of Technology (UTAUT) model with the uncertainty about aging that influences the intention to perform digital payments. The central focus of the study is to answer the research question: How is the digital payment system (technology) being accepted by older adults to fulfill their daily financial transaction needs? What uncertainty about aging among older adults moderates the influence of UTAUT key variables on the behavioural intention? Furthermore, this research aims to delve into understanding the key determinants of the UTAUT model (performance expectancy, effort expectancy, social influence, facilitating conditions) and its moderators (age, gender) among older adults from various socio-economic backgrounds.

2. TECHNOLOGY ACCEPTANCE, AGING AND OLDER ADULTS

Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM) are the two most used models to validate and test the technology acceptance. Notably, recent studies have examined various factors that influence technology acceptance among the elderly [29]–[36]. Older adults show a more positive attitude towards technology if they are given the required assistance [29], [32]–[33] [35]. With the help of technology, older adults could become independent to maintain their daily lives [37].

Besides, the usefulness of technology does not have a significant effect on technology acceptance [34], [38]–[39], for those who approach technology optimistically [40]. However, perceived usefulness has a significant effect on quick acceptance of technology [38] [41]–[43]. Finally, the usefulness, perceived ease of use, and the supporting environment affect the attitude of the older adults which predicts the intention to use technology [40], [44]. Technological acceptance mostly influenced by the factors related to the attitude and context of the older adults with respect to their age and education [45].

Though aging-related factors “struggle against difficulties” and “successful aging” had no effect on the use of technology, with the exception of the other key determinants, in technology acceptance and UTAUT models [39]. Moreover, peer influence and support– technical and training– for older adults is related to the acceptance of technology [46]–[47], improving their satisfactory well-being [31], [37], and other daily life activities [48]. Age is significantly associated with the intention to use technology [49], and the use of digital technologies in daily life enables older adults to participate in social activities and promotes active aging [79].

Considering the technological needs and resources available adopted by the older population, the integrated approach of Unified theory of acceptance and use of technology and uncertainty about aging can apprise the system to consider the distinctive characteristics of older adults in technology acceptance design. The use and usefulness of technology forecasts the older adults adoption of digital technology [50]. In contrast, the technology is demanding certain skills to learn and use, where the older adults find it difficult with the technology usage [25], this may be due to aging related factors [39]. Studies examined the hurdles in the adoption of technology in terms of usage, ergonomics [51], impairment measured the relationship between technology and successful aging [52] [81], but the consideration of uncertainty about aging with the technology acceptance is disregarded and needs to be look into the specific technological needs of older adults.

Studies have examined technology acceptance and uncertainty about aging. It has been found that uncertainty influences technology adoption among older adults, and furthermore, it may affect their intention to use these technologies [34], [53] [54] [80]. Older adults show more interest towards using digital devices for which they are familiar and perceive easy to use, interest is not shown for unfamiliar activities like using digital devices for healthcare systems and it is influenced by the key determinants of behavioural intention [55]. People who are less familiar with the technology may experience apprehension and hesitation when

adopting digital payment systems. Technological advancements aimed at providing safe and secure services in the financial sector may place older adults in the perception of adopting digital payment systems, and in contrast it is found that the ease of use and usefulness among older adults had a positive influence on the intention to use electronic payment methods [56] [57].

Accessibility is yet another uncertainty concern for digital payments, as they are often not designed considering older adults in mind. These concerns arise because older adults are unsure about how to navigate the world of fintech and digital payment methods. Worries about making mistakes during digital transactions can lead to financial losses due to unfamiliarity with the usage of digital systems and their features. Security and privacy of personal informations during online are serious concerns [58] for older adults, particularly during banking transactions [59]–[61]. The potential threats concerning trust and reliability [62], [63] influence older adults to adopt digital payment services instead of staying with traditional financial transactions. Elderly people's acceptance of internet banking is significantly affected by performance expectancy and effort expectancy [64].

For streamlined digital payments, older adults require a user-friendly interface design that utilizes simple navigation and steps for making payments. This design results in ease of use of the system, and the perceived ease of use influences the behavioural intention to use the system.

Aging may negatively influence the intention to use electronic payment systems [65], [66]. Gender and age is hypothesized to have a moderating effect on the performance expectancy, suggested by many studies that age differences have been shown to impact technology adoption [67]–[71].

Hence, it is hypothesized that the influence of four key determinants of UTAUT model (performance expectancy, effort expectancy, social influence, facilitating conditions) have an effect on Behavioural intention, and will be moderated by uncertainty about aging, gender, attitude, and anxiety [45].

In this digital world, financial institutions adopt the advancement in technology to provide a nexus of services to its customers nevertheless it significantly affects the elderly's acceptance of technology for their daily lives. However, this apprehends older persons' intention to adapt to new technologies. Examining the usefulness, usage, social influence, and facilitating conditions brings about insights to have a crucial understanding of technology acceptance in the aging process. Moreover, addressing these determinants in the perspective of older adults ensures the inclusion of them in the digital sphere and enables them to participate in the digital activities. The present study attempts to examine this complex phenomenon of acceptance of technology and its key factors in the aging process using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. Based on the previous studies and considering the factors involved in acceptance of technology using the UTAUT model with respect to older people. Given a comprehensive framework having the key determinants (performance expectancy, effort expectancy, social influence, facilitating conditions) in the model to study the acceptance of technology and the age-related factors such as uncertainty about aging, self-efficacy, attitude, and anxiety, following hypotheses were developed to test empirically.

- H1: The influence of Performance expectancy on Behavioural intention will be moderated by uncertainty about aging, self-efficacy, attitude, and anxiety.
- H2: The influence of Effort expectancy on Behavioural intention will be moderated by uncertainty about aging, self-efficacy, attitude, and anxiety.
- H3: The influence of Social Influence on Behavioural intention will be moderated by uncertainty
- about aging, self-efficacy, attitude, and anxiety.
- H4: The influence of Facilitating Conditions on Behavioural intention will be moderated by uncertainty about aging, self-efficacy, attitude, and anxiety.

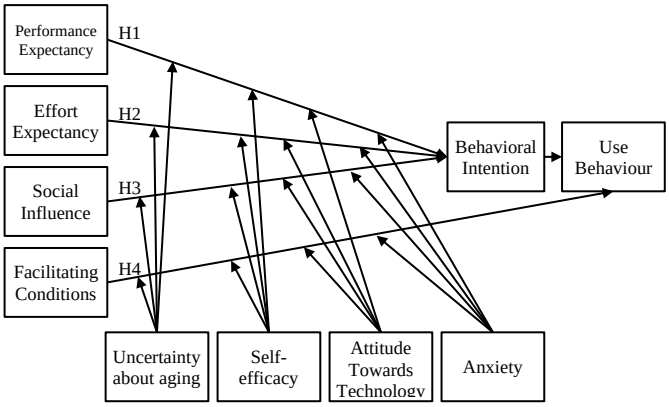

Fig.1. Research Model

3. METHODOLOGY

Present study focuses on the utilization of the UTAUT model constructs as measures. The key determinants, namely Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, and the dependent variable, Behavioral Intention, were utilized as primary measures for the present investigation. Additionally, in conformity with the UTAUT model, the study included attitude towards technology, anxiety, and self-efficacy constructs. Furthermore, the construct of uncertainty about aging was included, with these four additional constructs present study aims to assess their moderating roles within the proposed research model (refer to Fig.1). Data collection was carried out through a combination of telephonic surveys and an online survey platform, targeting a sample of 138 older adults above 50 years of age from the Indian state of Tamil Nadu. Respondents' consent was obtained via an online questionnaire. The data obtained were subjected to linear regression analysis using SPSS and AMOS applications. This analysis aimed to explain the moderating effects of the additional constructs on the key determinants of the UTAUT model and its influence on the dependent variable, Behavioral Intention, as proposed by the hypotheses H1, H2, H3, and H4 above.

4. ANALYSIS AND RESULTS

Moderation analysis is performed to test the hypothesis H1, with the inclusion of the interaction terms of moderating variables, the R-Sq increased from .694 (without inclusion) to .744. This shows an increase of 5% in variance explained in the dependent variable behavioural intention. Furthermore,

moderation analyses (see Table.1) revealed significant negative interactions, anxiety (b=-0.166, t=-3.230) and self-efficacy (b=-0.301, t=-3.708) with the relationship between performance expectancy and behavioral intention, indicating that higher levels of these constructs weaken the positive influence of performance expectancy on behavioral intention. Conversely, attitude (b = 0.322, t = 4.040, p = <.001) showed a significant positive moderating effect on the relationship between performance expectancy and behavioral intention, supporting Hypothesis H1 barring Uncertainty about aging as moderator.

Furthermore, slope analysis allows for a deeper understanding of the moderating effect of attitude, self-efficacy, and anxiety towards the relationship between performance expectancy on behavioural intention. With respect to the moderating effect of attitude as shown in Fig.2, the line is much steeper for High attitude, this shows that at high level of attitude towards using technology, the impact of performance expectancy on behavioural intention is much stronger than low attitude, whereas the low attitude impact performance expectancy on behavioural intention weaker. Hence, High level of attitude towards using technology strengthens the impact of performance expectancy on behavioural intention.

Moderating effect of self-efficacy towards the impact of performance expectancy on behavioural intention slopes (Fig.3) shows that the regression line is much steeper for low self-efficacy. This shows that at a low level of self-efficacy, the impact of performance expectancy on behavioural intention is much stronger in comparison to high self-efficacy. However at high self-efficacy level the line tends to be gentle slope, increase in performance expectancy does not lead to increase in the behavioural intention. Hence, higher self-efficacy weakens the impact of performance expectancy on behavioural intention. Although, increase in lower self-efficacy strengthens the impact of performance expectancy on behavioural intention. With respect to anxiety level in using the technology shown in Fig.4, the line is much steeper for low anxiety.

This shows that at low anxiety level, the impact of performance expectancy on behavioural intention is much stronger in comparison to high anxiety level (weakening). However, at higher anxiety level the line tends to be gentle, this shows that at higher anxiety level, the increase in performance expectancy does not lead to increase in the behavioural intention. Hence, higher anxiety weakens the impact of performance expectancy on behavioural intention. According to Cohen (1988) proposition “f-square effect size for moderating effect is (>=0.02 is small; >= 0.15 is medium;>= 0.35 is large)”. The F-square effect size was 0.2, showing that the moderating effect of attitude, self-efficacy, and anxiety contributes significantly to the medium effect in explaining the endogenous construct (Behavioural Intention).

Table.1. Performance Expectancy and Behavioral Intention

Moderators	Beta	SE	T value	P value
Attitude	0.322	0.060	4.040	0.000
Anxiety	-0.166	0.033	-3.230	0.002
Self-efficacy	-0.301	0.058	-3.708	0.000
Uncertainty about aging	-0.006	0.041	-0.106	0.916

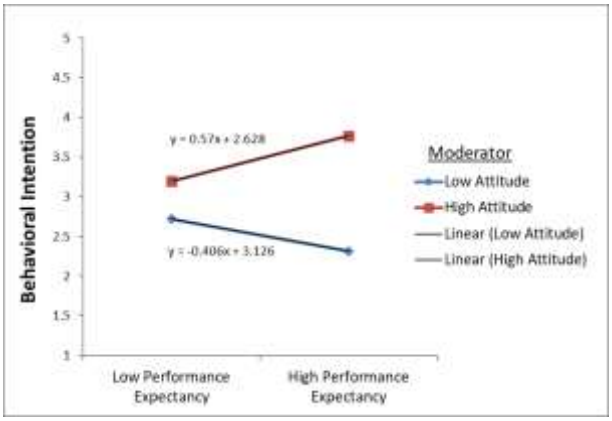

Fig.2. Slope analysis - Performance Expectancy and Behavioral Intention (Attitude)

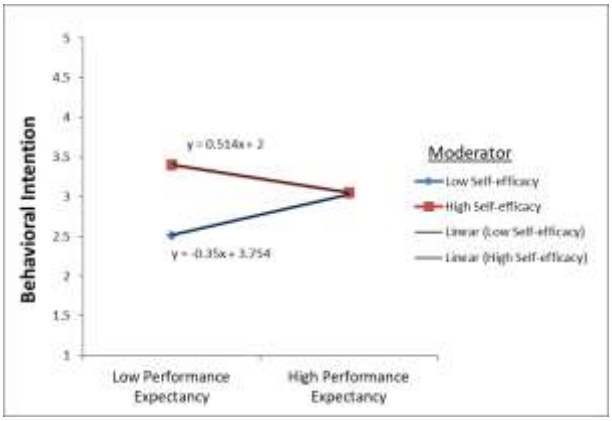

Fig.3: Slope analysis - Performance Expectancy and Behavioral Intention (Self-efficacy)

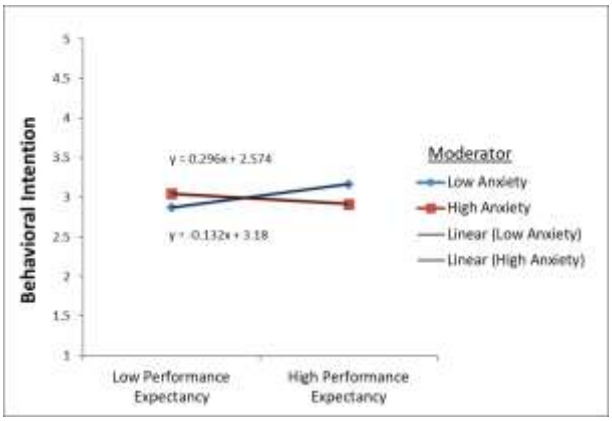

Fig.4. Slope analysis - Expectancy and Behavioral Intention (Anxiety)

To test hypothesis H2, moderation analyses were conducted to examine the interactive effects of uncertainty about aging, self-efficacy, attitude, and anxiety on the relationship between effort expectancy and behavioral intention. The inclusion of these interaction terms increased the model's explained variance from .694 to .728, representing a 3.4% increase.

Among the moderators (see Table.2), only anxiety exhibited a significant negative interaction with effort expectancy (b = -0.194, t = -3.609, p < .001), suggesting that higher levels of anxiety weaken the positive influence of effort expectancy on behavioral intention. These findings provide partial support for Hypothesis 2, as the remaining moderators did not significantly influence the relationship between effort expectancy and behavioral intention.

The slope analysis shows the relationship of moderating effect of anxiety towards the relationship between effort expectancy on behavioural intention. With respect to the moderating effect of anxiety as shown in Fig. 5, the line is much steeper for low anxiety. This shows that at a low level of anxiety towards using digital payment applications, the impact of effort expectancy on behavioural intention is much stronger than high anxiety levels. Hence, low level of anxiety towards using digital payment applications strengthens the impact of performance expectancy on behavioural intention. According to Cohen (1988) proposition "f-square effect size for moderating effect is (>=0.02 is small; >= 0.15 is medium;>= 0.35 is large)". The F-square effect size was 0.13, showing that the moderating effect of anxiety contributes significantly to the medium effect in explaining the endogenous construct (Behavioural Intention).

Table.2. Effort Expectancy and Behavioral Intention

Moderators	Beta	SE	T value	P value
Attitude	0.064	0.058	0.895	0.32
Anxiety	-0.194	0.037	-3.609	0.000
Self-efficacy	-0.068	0.063	-0.85	0.397
Uncertainty about aging	-0.007	0.038	-0.131	0.896

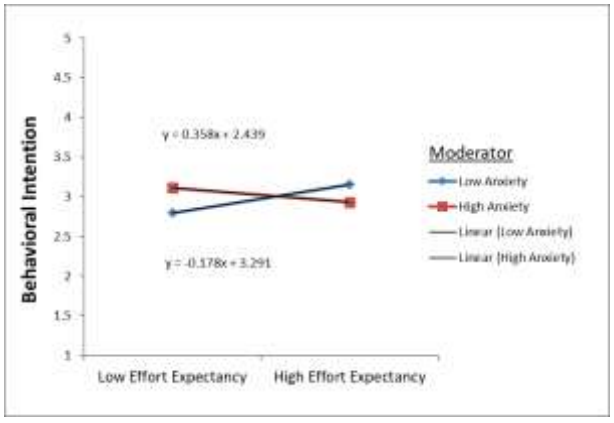

Fig.5. Slope analysis - Effort Expectancy and Behavioral Intention (Anxiety)

The inclusion of uncertainty about aging, self-efficacy, attitude, and anxiety as moderators in the relationship between social influence and behavioral intention resulted in a 2.1 % increase in explained variance, from .711 to .743. Moderation analyses (see Table.3) indicated a significant negative interaction with anxiety (b = -0.172, t = -3.064, p = .003) on the relationship between social influence and behavioral intention, suggesting that higher levels of anxiety weaken the positive influence of social influence on behavioral intention. These findings provide partial support for Hypothesis H3, as the other moderators did not significantly influence the target relationship.

Further, slope analysis is presented to better understand the relationship of moderating effect of anxiety towards the relationship between social influence on behavioural intention. With respect to the moderating effect of anxiety as shown in Fig. 6, the line is much steeper for low anxiety. This shows that at a low level of anxiety towards using digital payment applications, the impact of social influence on behavioural intention is much stronger than high anxiety levels. Hence, low level of anxiety towards using digital payment applications strengthens the impact of social influence on behavioural intention. According to Cohen (1988) proposition "f-square effect size for moderating effect is (>=0.02 is small; >= 0.15 is medium;>= 0.35 is large)". The F-square effect size was 0.08, showing that the moderating effect of anxiety contributes significantly to a small effect in explaining the endogenous construct (Behavioural Intention).

Table.3. Social Influence and Behavioral Intention

Interaction	Beta	SE	T value	P value
Attitude	0.064	0.07	0.744	0.458
Anxiety	-0.172	0.045	-3.064	0.003
Self-efficacy	-0.022	0.07	-0.231	0.818
Uncertainty about aging	0.016	0.037	0.331	0.741

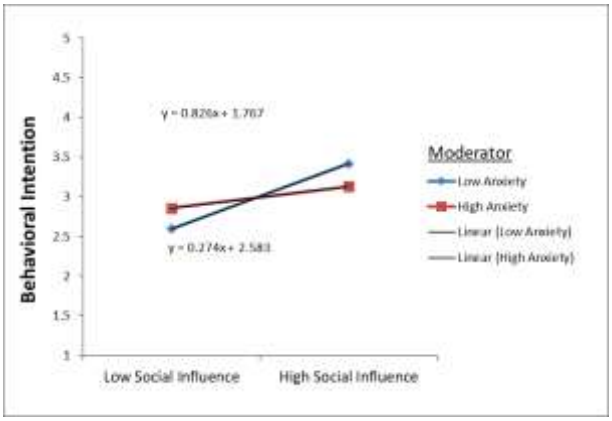

Fig.6. Slope analysis - Social Influence and Behavioral Intention (Anxiety)

With the inclusion of the interaction terms of moderating variables, the R-Sq increased to .738 from .711. This shows an increase of 2.7% in variance explained in the dependent variable behavioural intention. Further, significance of moderating effect was analyzed (see Table.4), the results showed a negative and significant moderating impact on self-efficacy (b=-0.24, t=-3.043, p=0.003) in using digital payment applications and the attitude (b=0.206, t=2.62, p=0.01) towards using the technology has a positive and significant moderating effect on the relationship between facilitating conditions and behavioural intention respectively, supporting H4 barring the moderating variable anxiety and uncertainty about aging.

The slope analysis shows the relationship of moderating effect of attitude and self-efficacy towards the relationship between facilitating conditions on behavioural intention. With respect to

the moderating effect of attitude as shown in the Fig. 7, the line is much steeper for High attitude, this shows that at high level of attitude towards using technology, the impact of facilitating conditions on behavioural intention is much stronger than low attitude. Hence, High level of attitude towards using technology strengthens the impact of facilitating conditions on behavioural intention.

Furthermore, to understand the moderating effect of self-efficacy towards the impact of facilitating conditions on behavioural intention presented in Fig.8 shows that the regression line is much steeper for low self-efficacy. This shows that at a low level of self-efficacy, the impact of facilitating conditions on behavioural intention is much stronger than high self-efficacy. Hence, increase in lower self-efficacy strengthens the impact of facilitating conditions on behavioural intention. According to Cohen (1988) proposition "f-square effect size for moderating effect is (>=0.02 is small; >= 0.15 is medium;>= 0.35 is large)". The F-square effect size was 0.103, showing that the moderating effect of self-efficacy, and anxiety contributes significantly to the medium effect in explaining the endogenous construct (Behavioural Intention).

4.1 PROBING INTERACTION

By probing the interaction to get a better understanding of the relationship from the performance expectancy to the behavioural intention in the presence of the moderators (attitude, anxiety, and self-efficacy) which showed a significant impact in the previous tests.

Table.4. Facilitating Condition and Behavioral Intention

Interaction	Beta	SE	T value	P value
Attitude	0.206	0.063	2.62	0.01
Anxiety	-0.092	0.043	-1.695	0.093
Self-efficacy	-0.24	0.06	-3.043	0.003
Uncertainty about aging	0.019	0.049	0.314	0.754

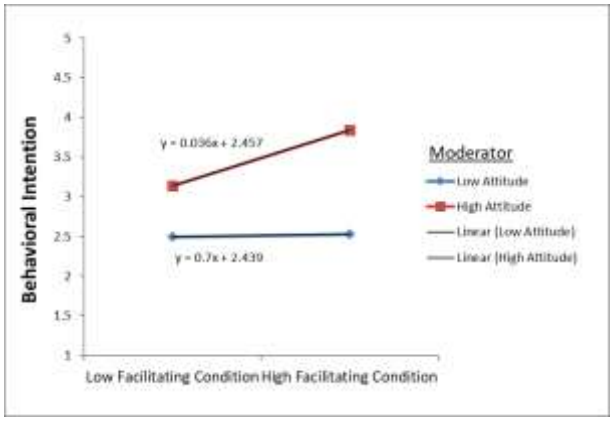

Fig.7. Slope analysis - Facilitating Condition and Behavioral Intention (Attitude)

The result shows that when older adults had a low degree of anxiety and lower level of self-efficacy towards using digital payment applications, the relationship from performance expectancy to the behavioural intention is significant and stronger. The mean centered level of moderator showed the regression weight for anxiety and self-efficacy from performance expectancy to behavioural intention of .442 and .239 respectively. And under low levels of the moderator, the relationship has strengthened to .582 and .313 respectively. Under the higher level of anxiety barring self-efficacy, the relationship from performance expectancy to behavioural intention, although weakened, showed a positive and significant effect.

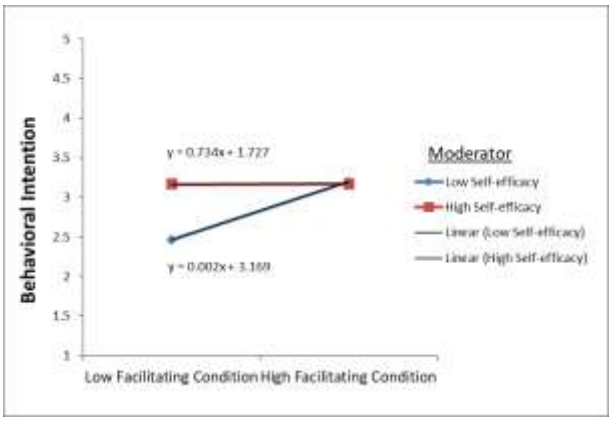

Fig.8. Slope analysis - Facilitating Condition and Behavioral Intention (Self-efficacy)

The moderators are significant at all levels of tests except high self-efficacy, and it is clearly seen that the weakening properties of the moderator are across the tests. (High anxiety level .303, Mean centered anxiety level .442, Low anxiety level .582, Mean centered self-efficacy level .239, Low self-efficacy level .313). Hence, the construct of anxiety is moderating the relationship of performance expectancy to behavioural intention when anxiety levels are both weak and strong, and self-efficacy is moderating the relationship at low level.

To understand the interaction for the key determinants, effort expectancy and social influence to the behavioural intention in the presence of the moderator (anxiety) which showed a significant impact in the previous test.

The result shows that when older adults had a low degree of anxiety towards using the digital payment applications, the relationship from effort expectancy and social influence to the behavioural intention is significant and stronger. The mean centered level of moderator showed the regression weight for anxiety from effort expectancy and social influence to behavioural intention of .544 and .670 respectively. And under low levels of the moderator (anxiety), the relationship has strengthened to .795 and .928 respectively. Under the higher level of anxiety, the relationship from effort expectancy and social influence to behavioural intention, although weakened, showed a positive and significant effect. The moderator (anxiety) is significant at all levels of tests, and it is clearly seen that the weakening properties of the moderator across the tests. For effort expectancy (High anxiety level .294, Mean centered anxiety level .544, Low anxiety level .795). For social influence (High anxiety level .412, Mean centered anxiety level .670, Low anxiety level .928) Hence, the construct of anxiety is moderating the relationship of performance expectancy and social influence to behavioural intention when anxiety levels are both weak and strong.

By probing the interaction to get a better understanding of the relationship from the facilitating conditions to the behavioural intention in the presence of the moderators (attitude and self-efficacy) which showed a significant impact in the previous tests.

The result shows that when the older adults had a low degree of attitude and lower level of self-efficacy towards using the digital payment applications, the relationship from facilitating conditions to the behavioural intention is significant and stronger. The mean centered level of moderator showed the regression weight for attitude and self-efficacy from facilitating conditions to behavioural intention of .289 and .514 respectively. And under low levels of the moderator, the relationship has strengthened to .295 and .598 respectively. Under the higher level of attitude and self-efficacy, the relationship from facilitating conditions to behavioural intention, although weakened, showed a positive and significant effect. The moderators are significant at all levels of tests, and it is clearly seen that the weakening properties of the moderator across the tests. (High attitude level .283, Mean centered attitude level .289, Low attitude level .295, High self-efficacy level .430, Mean centered self-efficacy level .514, Low self-efficacy level .598). Hence, the construct of attitude and self-efficacy are moderating the relationship of facilitating conditions to behavioural intention when attitude and self-efficacy levels are both weak and strong.

4.2 DISCUSSION

Higher level of attitude towards using technology strengthens the impact of performance expectancy and facilitating conditions on behavioural intention. In the recent past, there has been a need for understanding the older adults' adoption of technology due to its canvas across the sphere. However, it is evident to see that there is a growing interest in researching older adults' adoption of digital technologies, including digital payments. The major factor that influences older adult's digital payments system adoption is their attitude towards using technology [72]. Study found that older adult's attitude towards using technology to be a significant predictor of behavioural intention to use mobile systems for older adults [73]. Positive and higher attitude towards using digital technology is more likely to influence older adults' performance expectancy and encourages the use of digital payment systems.

In the digital-driven landscape, inclination towards the adoption of technology among older adults strengthens the influence of their performance expectancy on behavioural intention substantially for digital payment methods [74]. For many of the elders, adopting digital payment systems might elicit apprehension due to unfamiliarity with the platforms. The interconnectedness between attitude and behavioural intention becomes more noticeable these days. The higher the positive attitude towards technology, the more the inclination to intent to use the system and change in usage behavior [73].

If older adults are anxious about using digital payments, the intention to use that technology is influenced by the performance and social influence. Higher the anxiety level among older adults less likely to intend them to use digital payment applications, and weakens the relationship between performance expectancy and behavioral intention [75]. Study conducted for older adult's mobile shopping usage found that anxiety had a negative moderating effect between performance expectancy and behavioral intention. Whereas, the less anxious elderly use the digital payment system and strengthen their intention towards its usage by social influence and performance expectancy [75].

Low self-efficacy level is more likely to question their capability to use digital payments systems. Lower self-efficacy enhances the impact of facilitating conditions on behavioural intention [76]. Older adult's belief towards their capability to use the digital payment system strengthens and influences their intention through the facilitating conditions. Facilitating conditions providing a well-designed user friendly interface enhances the attitude of older adult's positively [77].

Anxiety among older adults plays a negative moderating role between performance expectancy and social influence towards their intention to use digital payment systems, including both at low and high anxiety levels. Study observed that the influence of performance expectancy and social influence on behavioral intention is weakened by the higher anxiety levels for the teachers using distance learning technologies [78].

Attitude and self-efficacy towards using digital payment applications have a moderating role between the relationship of facilitating conditions to behavioural intention, when both are at weak and strong levels. People having a positive attitude and high level 0f self-efficacy towards technology strongly influences the behavioral intention through the facilitating conditions [76].

Anxiety and self-efficacy negatively influence older adults' intention to engage in digital payments. Conversely, a positive attitude towards technology fosters such intention. Moreover, anxiety diminishes both effort expectancy and social influence in relation to digital payments. Interestingly, high self-efficacy appears to mitigate the impact of facilitating conditions on behavioral intention. Finally, a positive attitude enhances the relationship between facilitating conditions and behavioral intention.

5. CONCLUSION

It is observed that older adult's attitude towards using technology plays a significant role in shaping behavioural intention to use the digital payment system. Positive attitude strengthens the influence of older adult's performance expectancy on behavioural intention. It is clearly understood that older adults with a positive attitude towards using technology believe that digital payment applications are likely to be useful and easy to use. However, the anxiety level among older adults weakens the relationship between the two constructs mentioned. When it comes to self-efficacy levels, lower self-efficacy is likely to be more vulnerable in influencing performance expectancy. Furthermore, anxiety plays a major role in moderating the social influence on behavioural intention. Suggesting low anxious levels towards using digital payment applications impact the adoption of technology positively regardless of the anxiety levels (low/high). Older adults more anxious towards using digital payment applications are less likely to consider it as useful. Whereas, less anxious older adults may be influenced by their family and friends when using digital payment systems.

Moreover, older adults having a positive attitude towards using technology with a facilitating environment are likely to enhance their adoption of digital payment applications for their daily needs. If the requisite facilities and supports are available to them. To conclude, the business organisations may take necessary

steps to highlight the benefits of using digital payment systems targeting older adults through special marketing programs to convey the convenience, security, and ease-of-use in using digital payments. Furthermore, by considering older adults, the fintech organisations could develop an user-friendly design supporting elderly needs. In addition, family and friends can encourage digital payments for their elders that may be influenced for promoting technology adoption.

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