

Demographic variations in intentions towards artificial intelligence-driven financial services in emerging economies: A study of Saudi Arabia

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Keywords

Artificial intelligence (AI), financial services, financial institutions, fintech, behavioural intention, consumer, demographics

Abstract

Artificial intelligence (AI) is revolutionising the financial industry; however, consumer perceptions towards AI in financial services remain relatively limited. The purpose of this study is to investigate variations in behavioural intention towards AI-driven financial services across demographic factors (gender, marital status, age, education level, and income) in Saudi Arabia. A questionnaire was distributed, and 296 complete responses were collected. The survey contained four items to measure behavioural intention. The data were analysed using independent t-tests, one-way analysis of variance with Tukey's honest significant difference post hoc tests. The findings indicate that behavioural intention is significantly different across the five tested demographic variables: gender, marital status, age, education level, and income level. The results also suggest that females and unmarried individuals have a greater propensity to engage with AI-driven financial services than their counterparts. Moreover, the multiple comparison analysis reveals that individuals within the 21-30 age range and those with lower income levels exhibit a significantly greater intention to use these services. Conversely, individuals possessing postgraduate degrees or higher demonstrate a lower intention to utilise AI-driven financial services compared to those with lower educational qualifications. This research contributes to our understanding of the effects of demographic factors on the adoption of AI-driven financial services by consumers, a topic that has received limited attention in the literature. Moreover, the current study provides practical insights for financial institutions to utilise demographic analysis in tailoring their AI-driven services and marketing strategies, thereby enhancing consumer adoption and helping them stay ahead of the curve in terms of financial technology advancements.

Introduction

Artificial Intelligence (AI) is one of the most transformative technologies of the era, with a profound impact on daily life. Within the financial sector, AI has become an integral part of the way businesses operate, revolutionising transactions and operations by streamlining complex processes, improving efficiency, and enhancing personalised client interactions (Belanche et al., 2019; Gąsioriewicz et al., 2020).

Financial institutions are recognising the vast potential of AI to transform their businesses. By leveraging AI-driven services, they can drive financial inclusion, boost customer satisfaction and loyalty, and optimise operational efficiency, ultimately reducing the costs and burdens associated with traditional client interactions (Mehrotra, 2019). In line with the Saudi Vision 2030, which aims to increase fintech and AI utilisation, these institutions are motivated to provide better services to their customers.

Despite the increasing importance of AI-driven services in the financial sector, financial institutions have expressed concerns about their acceptance, prompting a surge in research examining the factors driving adoption and usage across various countries (Belanche et al., 2019). In Saudi Arabia, however, the government's strong support for AI and fintech as part of its Vision 2030 initiative stands in stark contrast to the limited research devoted to AI-driven financial services in the country.

The technology adoption literature underscores the significance of demographic factors in shaping technology adoption, as seen in various contexts such as mobile banking (e.g. Alalwan et al., 2015) and e-banking (e.g. Izogo et al., 2012). However, there is a gap in the literature regarding the investigation of

demographic variations in intentions to use AI-driven financial services, despite the growing importance of AI in the financial sector. Financial institutions must gain a deeper understanding of customers' perceptions regarding their intention to use AI-driven financial services, which may vary significantly across different demographic groups. This knowledge will enable them to develop targeted market segmentation strategies that cater to the unique needs and preferences of distinct demographics, ultimately accelerating the adoption of these technologies and helping to achieve Vision 2030 objectives in Saudi Arabia. Therefore, this study aims to investigate whether there are significant demographic variations in Saudi consumers' perceptions of their intention to adopt AI-driven financial services.

Literature Review and Hypotheses Development

The digital divide is an emerging theory that highlights disparities in access to and utilisation of information and communication technology (ICT) (Van Dijk and Hacker, 2003). It encompasses unequal access to ICT, as well as the differing skill levels required for effective use, influenced by factors such as gender, location, skills, and income (Abu-Shamad and Al Jamal, 2015). This theoretical perspective is crucial for understanding how demographic factors affect technology adoption (Andreasson, 2015). Building on this theoretical framework, this study aims to examine whether variations in demographic factors influence intentions to use AI-driven financial services in Saudi Arabia.

Research indicates that these demographic variables—gender, marital status, age, education, and income—significantly affect consumers' adoption of technology (Baker et al., 2007; Izogo et al., 2012; Khaldi, 2021). This study focuses on Saudi consumers' intentions to utilise AI-driven financial services, a topic that remains underexplored in comparison to mobile banking and e-banking (Dean, 2008).

Gender

The concept of gender is complex and multifaceted, with various studies treating it as either a descriptive or explanatory factor (Morgan, 1986). While some research, particularly in developed countries, suggests that gender differences are diminishing in an era of equality (e.g. Aguirre-Urreta and Marakas, 2010), others present a different perspective. The role of gender in shaping individuals' perceptions, intentions, and behaviours towards technology has been extensively explored in e-banking and mobile banking adoption research (Aboobucker, 2020; Haider et al., 2018; Yuan et al., 2016). Studies have found that men tend to adopt new technologies based on perceived benefits and advantages (Dean, 2008; Venkatesh et al., 2003; 2000), while women prioritise factors such as facilitated resources, ease of use, and assurance. This disparity in perception has led to the hypothesis that:

H1: The intention to use AI-driven financial services differs significantly between males and females

Marital Status

Marital status is often overlooked in e-banking and mobile banking adoption studies, but some research suggests it can have a significant impact on behavioural intention. For instance, Izogo et al. (2012) found that single individuals used e-banking channels more frequently than married individuals. According to other researchers, this is because singles may be more likely to adopt e-banking services due to their autonomy and higher capability to take risks (Chauhan, 2016; Roszkowski et al., 1993; Sung and Hanna, 1996). However, a contrasting view is presented by some studies, which argue that married couples are more likely to adopt mobile banking due to their joint bank accounts (Stavins, 2001). Ultimately, while there are differing views on which group uses more, it can be concluded that marital status is a significant factor in shaping adoption behaviour. Therefore, it can be hypothesised that:

H2: The intention to use AI-driven financial services differs significantly between married and unmarried individuals

Age

Age has been theoretically explored as a variable that influences users' perceptions and behaviours (Finch, 1986). In the context of technology adoption, age has been found to play a significant role in determining individual perceptions and adoption patterns, with research suggesting that technology adopters are typically found within the age range of 15-35 years (e.g. Venkatesh et al., 2000). In the e-

banking and mobile banking adoption literature, studies consistently demonstrate that age has a substantial impact on adoption (e.g. Merhi et al., 2021; Ramayah and Koay, 2002). Older individuals may experience difficulties in adopting e-banking services due to perceived limitations (Ramayah and Koay, 2002), whereas younger individuals are more likely to adopt these services due to their perceived benefits (Sylvie and Xiaogan, 2005) and attraction to innovative technologies such as mobile banking (Koenig-Lewis et al., 2010). Moreover, research has increasingly focused on specific generations, such as Gen Z, Y, and X, to investigate their distinct adoption patterns. Therefore, the variation in age can significantly influence the adoption of AI-driven financial services, leading us to hypothesise that:

H3: The intention to use AI-driven financial services differs significantly among different age groups

Education

A growing body of research has consistently shown a positive correlation between educational level and the adoption of e-banking and mobile banking services. Highly educated individuals, i.e. more receptive to innovations, are likely to adopt new technologies, as they possess the skills and abilities to navigate complex tasks (Burgess, 1986). Fonchamnyo (2013) found that higher educated consumers exhibit a greater propensity for adopting e-banking services compared to less educated individuals. Moreover, educational level directly influences individuals' perceptions of ease of use and usefulness (Chung and Paynter, 2002), leading us to propose:

H4: The intention to use AI-driven financial services differs significantly among different education levels

Income

Numerous studies have consistently demonstrated that income plays a significant role in influencing the adoption of innovation and new technology (e.g. Lee and Lee, 2000). Several studies have shown that individuals with higher incomes are more likely to adopt e-banking technology (e.g. Kolodinsky et al., 2004). This correlation may be attributed to the fact that those with higher incomes are more likely to have access to personal computers, mobile devices, and internet connections, making it easier for them to use digital financial services (Padachi et al., 2008). However, some argue that this assumption is overly simplistic, as individuals with lower incomes may be more likely to adopt digital banking due to its convenience and accessibility (Ismail and Masinge, 2012), especially given the widespread use of smartphones in modern life. While opinions may differ, these studies suggest that differences in income levels can significantly influence the intention to use mobile or e-banking. Therefore, the following hypothesis is proposed for exploration in the context of AI-driven financial services:

H5: The intention to use AI-driven financial services differs significantly among different income levels

Methodology

A survey was designed as a data collection tool and distributed to Saudi citizens using a convenience sampling approach to gather responses from a diverse range of technology users (Alalwan et al., 2015). The questionnaire underwent pre-testing and revision to ensure its content validity.

The survey included demographic questions with multiple-choice and two-choice options, as well as four items measuring behavioural intention (BI) towards AI-driven financial services adoption on a five-point Likert scale. To ensure the reliability of the measurement items related to BI, these items were derived from established literature on technology adoption (Venkatesh et al., 2003) and the adoption of AI in banking (Belanche et al., 2019).

Of the 500 surveys distributed, a total of 296 complete responses were gathered between January and May 2024, resulting in a response rate of 59.2%. Kline (2005) asserts that a sample size of between 200 and 400 is sufficient for conducting statistical tests.

The collected data were analysed using SPSS software. A Cronbach's alpha test was conducted for BI to assess reliability, and kurtosis and skewness were evaluated to ensure normality of the data distribution. Independent t-tests were conducted to examine differences in perceptions and intentions towards AI-driven financial services by gender and marital status. Additionally, one-way analysis of

variance (ANOVA) tests were conducted to examine the differences in perceptions and intentions across levels of age, education, and income. Post hoc tests were performed to further clarify these findings.

Results

Descriptive Statistics

Before conducting the descriptive statistics, a Cronbach's alpha test was performed on the items of behavioural intention and found to be 0.958, indicating high reliability. Furthermore, the kurtosis and skewness were tested and found to be within the range of ± 2.58 (Hair et al., 2017), indicating that the data are normally distributed.

The demographic descriptive statistics are presented in Table 1. As shown, 55.7% of the respondents were female, while 44.3% were male. In terms of marital status, 44.9% were married, and the remaining 55.1% were unmarried. The age distribution revealed that 51% were aged 21 to 30 years, followed by 22.3% aged 31 to 40 years and 17.6% aged 41 to 50 years. Additionally, 6.1% were below 20 years, and 3% were over 50 years. The education level results indicate that 34.8% held high school certificates, 44.9% held bachelor's degrees, 18.6% held postgraduate or higher degrees, and the remaining 1.7% held diploma certifications. In terms of income level, 54.1% of the sample had a monthly income of less than SAR 5,000. A further 9.1% earned between SAR 5,000 and 9,999, while 12.8% received between SAR 10,000 and 19,999. Additionally, 11.8% received between SAR 20,000 and 30,000, and 12.2% earned more than SAR 30,000.

Table 1 Demographic Descriptive Statistics

		Count	Percentage %
Gender	Male	131	44.3%
	Female	165	55.7%
Age	Below 20 Years	18	6.1%
	21 to 30 Years	151	51.0%
	31 to 40 Years	66	22.3%
	41 to 50 Years	52	17.6%
	Above 50 Years	9	3.0%
Marital Status	Married	133	44.9%
	Unmarried	163	55.1%
Education	High School	103	34.8%
	Diploma	5	1.7%
	Bachelor's degree	133	44.9%
	PG and above	55	18.6%
Income-SAR	Below 5,000 SAR	160	54.1%
	5,000-9,999 SAR	27	9.1%
	10,000-19,999 SAR	38	12.8%
	20,000-30,000 SAR	35	11.8%
	More than 30,000 SAR	36	12.2%

The descriptive statistics of the behavioural intention (BI) items are presented in Table 2, which reveals an average score of 4.0175 across the four items.

Table 2 Descriptive Statistics of Behavioural Intention

Construct	Items	N	Minimum	Maximum	Mean	S.D.
BI	BI1	296	1	5	4.01	0.941
	BI2	296	1	5	4.05	0.921
	BI3	296	1	5	4.03	0.94
	BI4	296	1	5	3.98	1.003

Average BI

4.0175

Data Analysis***The Comparison of Behavioural Intention towards AI-driven Financial Services by Gender and by Marital Status***

To determine the behavioural intention by gender, an independent t-test was conducted (Table 3), as it is a comparison between only two groups. As shown in Table 3, the results reveal a statistically significant difference between males and females in terms of their behavioural intention towards using AI-driven financial services, supporting H1 at the 95% significance level. Moreover, the results show that females have a higher intention to use AI-driven financial services compared to males. While the study found a significant correlation between AI-driven financial services adoption and gender, the effect size was relatively small (according to Cohen's 1988 guidelines), with only 1.89% of the variation explained by gender.

Table 3 Comparison of Behavioural Intention towards AI-Driven Financial Services by Gender
Independent Samples Test

	Gender	N	Mean	S.D.	F	t	Sig. of t (p-value)	Empirical Decision
BI	Male	131	3.8836	0.94833	1.082	-2.324	0.021	H1 Supported at 95%
	Female	165	4.1258	0.84176				

An independent t-test was also conducted and is presented in Table 4. The results indicate that there are statistically significant differences between married and unmarried individuals in terms of their intention towards AI adoption in financial services, supporting H2. The results also suggest that unmarried individuals tend to have a higher adoption intention, as evident from their higher mean value shown in Table 4. The effect size value of 0.111 indicated that 11.1% of AI-driven financial services adoption is explained by marital status, which is a large effect, as indicated by Cohen's guidelines (1988).

Table 4 Comparison of Behavioural Intention towards AI-Driven Financial Services by Marital Status
Independent Samples Test

	Marital Status	N	Mean	S.D.	F	t	Sig. of t (p-value)	Empirical Decision
BI	Married	133	3.7086	1.05313	26.856	-5.389	.000	H2 Supported at 99%
	Unmarried	163	4.2715	0.64693				

The Comparison of Behavioural Intention towards AI-driven Financial Services by Age Group, Education Level, and Income Level

To explore the influence of multiple categories of age groups, education levels, and income levels on behavioural intention towards AI-driven financial services, ANOVA tests were conducted for each of the demographic factors separately. Furthermore, robustness tests using the Welch test were performed to validate the findings. Table 5 presents the results.

Table 5 Comparison of Behavioural Intention towards AI-Driven Financial Services by Age, Education, and Income

ANOVA						Robust Tests of Equality of Means (Welch Test)				
Dependent Variable: BI										
	Sum of Squares	df	Mean Square	F	Sig.	Statistic	df1	df2	Sig.	Empirical Decision
Age Group	33.486	4	8.372	11.947	.000	9.887	4	38.944	.000	H3 Supported at 99%
Education Level	33.479	3	11.160	15.980	.000	13.172	3	19.487	.000	H4 Supported at 99%
Income Level	30.797	4	7.699	10.845	.000	9.329	4	72.098	.000	H5 Supported at 99%

The analysis reveals statistically significant differences among demographic groups in their intention to use AI-driven financial services. Specifically, a highly significant difference was found between age groups ($p=0.000$), which is confirmed by the Welch test, supporting hypothesis H3. Similarly, a significant difference was found between education levels ($p=0.000$), confirming hypothesis H4. Additionally, the results in Table 5 show a highly significant difference among income levels, supporting hypothesis H5.

Post hoc tests

Since statistical significance was identified in the ANOVA, a Tukey's HSD post hoc test was conducted to identify which means are significantly different from one another. This was done for Age group (Table 6), Education Level (Table 7), and Income Level (Table 8).

Comparing multiple age groups (Table 6), a significant difference was found between individuals aged 21-30 and those aged 31-40 ($p=0.000$). Furthermore, a significant difference was also found between individuals aged 21-30 and those aged 41-50 ($p=0.000$). These results suggest that younger generations (e.g. 21-30) have a higher intention to use AI-driven financial services compared to older generations (e.g. 31-40 and 41-50).

In terms of the multiple comparison of education level, the Tukey HSD results in Table 7 reveal significant differences in means between individuals with a postgraduate (PG) degree or higher and those with a high school degree ($p=0.000$). Additionally, those with a PG degree or higher had a significant difference compared to those with a bachelor's degree ($p=0.000$) and diploma holders ($p=0.004$). The results indicate that people with a high education level (PG or above) tend to have lower intention towards using AI-financial services when compared to other educational levels.

Income levels were compared across different groups, as presented in Table 8. The results show significant differences between the "Below 5,000 SAR" group and both the "10,000-19,999 SAR" ($p=0.000$) and "20,000-30,000 SAR" groups ($p=0.000$), with mean differences of 0.668 and 0.735, respectively. Additionally, a significant difference was found between the "Below 5,000 SAR" group and the "More than 30,000 SAR" group ($p=0.000$), with a mean difference of 0.661. These findings indicate that individuals with lower incomes ("below 5,000 SAR") have a significantly higher intention to use AI-driven financial services compared to those with higher incomes (10,000 SAR or more).

Overall, all demographic groups (gender, marital status, age group, education, and income) exhibited statistically significant differences in their intention to use AI-driven financial services, thereby fully supporting all five hypotheses.

Table 6 Multiple comparisons by Age group

Dependent Variable: BI

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.
Below 20 Years	21 to 30 Years	-0.22066	0.20873	0.828
	31 to 40 Years	0.31692	0.22259	0.613
	41 to 50 Years	0.62126	0.22892	0.054
	Above 50 Years	0.375	0.34174	0.808
21 to 30 Years	Below 20 Years	0.22066	0.20873	0.828
	31 to 40 Years	.53758*	0.12352	.000
	41 to 50 Years	.84192*	0.1346	.000
	Above 50 Years	0.59566	0.28723	0.234
31 to 40 Years	Below 20 Years	-0.31692	0.22259	0.613
	21 to 30 Years	-.53758*	0.12352	.000
	41 to 50 Years	0.30434	0.15522	0.288
	Above 50 Years	0.05808	0.29745	1.000
41 to 50 Years	Below 20 Years	-0.62126	0.22892	0.054
	21 to 30 Years	-.84192*	0.1346	.000
	31 to 40 Years	-0.30434	0.15522	0.288
	Above 50 Years	-0.24626	0.30222	0.926
Above 50 Years	Below 20 Years	-0.375	0.34174	0.808
	21 to 30 Years	-0.59566	0.28723	0.234
	31 to 40 Years	-0.05808	0.29745	1.000
	41 to 50 Years	0.24626	0.30222	0.926

*. The mean difference is significant at the 0.05 level.

Table 7 Multiple Comparisons by Education Level

Dependent Variable: BI

Tukey HSD

(I) Education	(J) Education	Mean Difference (I-J)	Std. Error	Sig.
High School	Diploma	-0.39417	0.38269	0.732
	Bachelor's degree	0.27011	0.10969	0.068
	PG and above	.92855*	0.13956	.000
Diploma	High School	0.39417	0.38269	0.732
	Bachelor's degree	0.66429	0.38068	0.302
	PG and above	1.32273*	0.39034	0.004
Bachelor's degree	High School	-0.27011	0.10969	0.068
	Diploma	-0.66429	0.38068	0.302
	PG and above	.65844*	0.13397	.000
PG and above	High School	-.92855*	0.13956	.000
	Diploma	-1.32273*	0.39034	0.004

Bachelor's degree

-**.65844***

0.13397

.000

*. The mean difference is significant at the 0.05 level.

Table 8 Multiple Comparison by Income Level

Dependent Variable: BI

Tukey HSD

		Mean Difference		
(I) Income-SAR	(J) Income-SAR	(I-J)	Std. Error	Sig.
Below 5,000 SAR	5,000-9,999 SAR	.30926	.17531	.397
	10,000-19,999 SAR	.66842*	.15205	.000
	20,000-30,000 SAR	.73571*	.15723	.000
	More than 30,000 SAR	.66111*	.15543	.000
5,000-9,999 SAR	Below 5,000 SAR	-.30926	.17531	.397
	10,000-19,999 SAR	.35916	.21208	.440
	20,000-30,000 SAR	.42646	.21582	.280
	More than 30,000 SAR	.35185	.21451	.473
10,000-19,999 SAR	Below 5,000 SAR	-.66842*	.15205	.000
	5,000-9,999 SAR	-.35916	.21208	.440
	20,000-30,000 SAR	.06729	.19740	.997
	More than 30,000 SAR	-.00731	.19597	1.000
20,000-30,000 SAR	Below 5,000 SAR	-.73571*	.15723	.000
	5,000-9,999 SAR	-.42646	.21582	.280
	10,000-19,999 SAR	-.06729	.19740	.997
	More than 30,000 SAR	-.07460	.20002	.996
More than 30,000 SAR	Below 5,000 SAR	-.66111*	.15543	.000
	5,000-9,999 SAR	-.35185	.21451	.473
	10,000-19,999 SAR	.00731	.19597	1.000
	20,000-30,000 SAR	.07460	.20002	.996

*. The mean difference is significant at the 0.05 level.

Discussion

This study examines the behavioural intention of individuals towards AI-driven financial services in Saudi Arabia, investigating the influence of demographic factors on acceptance. The findings reveal significant variations in intentions among different demographics, highlighting the importance of considering these factors in the development of AI-driven financial services.

The results indicate that gender has a significant impact on the adoption of AI-driven financial services, contradicting previous findings that suggested gender has an insignificant influence on technology adoption (Aguirre-Urreta and Marakas, 2010). Notably, this result aligns with research indicating that women are more inclined to adopt technologies based on factors such as ease of use, facilitating resources, and assurance (Venkatesh et al., 2000). Financial institutions can capitalise on this trend by implementing targeted marketing campaigns and user-friendly AI-driven platforms that provide facilitating resources and instil assurance in female consumers.

Marital status is found to be a significant factor in adopting AI-driven financial services, with unmarried individuals showing a higher intention to adopt due to their greater financial independence and willingness to experiment with new technology. This supports findings by Izogo et al. (2012), but

contradicts Stavins (2001). Financial institutions should cater to singles' needs with tailored services and promotions.

The study also reveals significant differences in intentions among age groups. Younger individuals (21-30 years old) exhibit a significantly higher intention to use AI-driven services compared to older groups (31-40 and 41-50 years old). This finding is consistent with studies that demonstrate that younger generations tend to adopt technology more rapidly (e.g. Venkatesh et al., 2000). Financial institutions can effectively target this demographic by offering innovative AI solutions that are always updated with new features and platforms.

Education level also plays a significant role, with those holding postgraduate degrees exhibiting a lower intention to use AI-driven financial services compared to less educated individuals (those with high school, diploma, and bachelor's degrees). This finding supports Jiménez and Díaz (2019), but contradicts Fonchamnyo's (2013) argument that higher education levels are associated with a higher intention to adopt e-banking services. A possible explanation is that postgraduates and above may be more conservative and prefer more personalized and face-to-face advice to make decisions (Jiménez and Díaz, 2019). To motivate high-achieving individuals, financial institutions can offer customised services, targeted marketing, and user-friendly AI-driven platforms.

The findings highlight a significant difference between low-income and high-income groups in their intention to adopt AI-driven financial services, which aligns with studies that suggest lower-income individuals tend to adopt technology-enabled banking as a means of inclusion, cost-effectiveness, and easier access (Ismail and Masinge, 2012). It also aligns with the argument that people with high income levels may prefer face-to-face personal advice on their decisions regarding their investments (Jiménez and Díaz, 2019). Furthermore, the higher intention among low-income individuals underscores the need for banks to tailor their marketing strategies and product offerings to effectively target and serve this segment by offering incentives such as promotions and discounts on services.

Practical Implications and Contribution

The study revealed significant demographic variations in the intention to utilise AI-driven financial services in Saudi Arabia. This indicates that financial institutions could derive substantial benefits by enhancing their understanding of and catering to the specific needs of different demographic groups. By adapting their marketing strategies and services to effectively target their selected customer base, financial institutions can ensure they provide suitable and relevant offerings. Such an approach would enable these institutions to meet the needs and expectations of both their existing and prospective consumer segments, thereby facilitating their success in attracting and retaining customers. By implementing these recommendations, financial institutions can improve customer acceptance of AI-driven financial services and further support Saudi Arabia's Vision 2030 objectives.

This study contributes to the existing literature on AI adoption by addressing a notable gap in research, which, to the best of our knowledge, has often overlooked the examination of demographic variations and their influence on behavioural intention towards AI-driven financial services. Additionally, it supports the digital divide theory by identifying significant variations across all examined demographic factors.

Limitations and Future Research Directions

This study has limitations that offer opportunities for future investigations. While conducted in Saudi Arabia, the results may not be generalisable to other contexts. Future studies could explore demographic factors in various countries, investigating similar variations. Moreover, this study focused on specific demographic factors (gender, marital status, age group, education level, and income level). Future research could expand on this by incorporating other factors, such as experience in AI or individual-level characteristics. Demographic factors might also be examined as moderators of the relationship between constructs and behavioural intention towards AI-driven financial services.

Conclusion

This study investigates the diverse perspectives of Saudi Arabian individuals towards AI-driven financial services, considering five demographic factors: gender, marital status, age, education, and income. A survey with 296 respondents was conducted, featuring four items to measure behavioural intention. Statistical analysis using t-tests and ANOVA revealed significant variations in behavioural intention across the demographic variables. The findings show that females exhibit a stronger inclination towards AI-driven financial services compared to males. Additionally, unmarried individuals, those aged 21-30, and those with lower incomes tend to be more receptive to these services. In contrast, postgraduates and above demonstrate a lower intention to adopt AI-driven financial services. The study's results offer valuable insights for future research in AI-driven financial services and behavioural intention. It also provides practical recommendations that offer concrete advice for financial institutions in Saudi Arabia and other emerging markets to stay ahead of the curve in fintech and thrive in the digital age.

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