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Bridging the Cultural Divide: The Role of Digital Financial Inclusion in Robo-Advisory Services

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Abstract

Financial technology (FinTech) is transforming wealth management through robo-advisory services, leveraging artificial intelligence for cost-effective financial guidance. However, cultural values and financial literacy significantly influence adoption, particularly in emerging markets. This study examines the role of cultural perceptions, financial literacy, trust in AI, and perceived risk in robo-advisory adoption using Structural Equation Modeling (SEM) on data from 380 UAE respondents. The findings confirm that individualism and low uncertainty avoidance foster adoption, whereas collectivist and high uncertainty avoidance cultures exhibit reluctance. Financial literacy enhances adoption but does not moderate cultural influences, indicating the persistence of cultural norms despite financial knowledge. Trust in AI boosts adoption, while perceived risk deters engagement. These insights emphasize the need for culturally adaptive FinTech solutions, trust-building measures, and regulatory enhancements in AI transparency and cybersecurity. Future research should explore financial behavior trends and cross-cultural comparisons to advance global digital financial inclusion.

Keywords: *FinTech, Robo-Advisory Adoption, Cultural Values, Financial Literacy, Trust in AI*

Introduction

In an increasingly globalized world, financial technology (FinTech) is revolutionizing the way individual's access and manage wealth. One of the most transformative innovations in this sector is **robo-advisory service**, which utilize artificial intelligence and automation to provide financial guidance, investment strategies, and portfolio management at a fraction of the cost of traditional advisors. However, despite their growing popularity, robo-advisors face a significant challeng **the cultural divide in financial inclusion.**

Digital financial inclusion aims to provide equitable access to financial services for underserved populations, particularly in emerging markets and diverse socio-economic backgrounds. While robo-advisory platforms promise greater accessibility, transparency, and efficiency, their effectiveness is influenced by **cultural attitudes toward money, trust in digital platforms, financial literacy, and regulatory environments.** For example, societies with a preference for personal relationships in financial decision-making may be hesitant to embrace automated advisory solutions.

However, a **key research gap** exists in understanding **how cultural perceptions of technology and finance influence both access to and trust in robo-advisors**. While previous studies have examined the role of financial literacy and technology adoption, limited research has explored **the intersection of cultural values and digital financial behavior.** The question remains: **How**

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do cultural differences shape user engagement, perceived risk, and trust in algorithm-driven financial services? Additionally, most existing research primarily focuses on developed economies, leaving a significant gap in understanding how robo-advisory adoption unfolds in culturally diverse and emerging markets.

This study contributes to the existing literature by examining cultural barriers to adoption, building on prior research such as Roh et al. (2023), which analyzed perceived security, privacy concerns, and trust in AI-driven robo-advisors (Roh, Park, & Xiao, 2023). It extends the discussion to include cultural and socio-economic barriers in adoption. Additionally, it assesses the role of financial literacy and trust, expanding on studies like Nourallah (2023), which explores how young retail investors develop initial trust in robo-advisors (Nourallah, 2023). While much research focuses on developed nations (Belanche et al., 2019), this study will address adoption patterns in culturally diverse and underrepresented financial markets (Belanche, Casaló, & Flavián, 2019). Furthermore, its findings will provide recommendations to regulators and FinTech firms for designing culturally adaptive robo-advisory services, ensuring inclusivity across different populations.

The rest of the paper is organized as follows: Literature review and Hypotheses Development 2. Methodology 3. Findings 4. Conclusions & Recommendations5. References 6.

Literature Review and Hypotheses Development

Financial technology (FinTech) has transformed the accessibility of financial services by bridging economic disparities and improving financial inclusion. Digital financial inclusion refers to the use of digital technologies to provide affordable financial services, particularly to underserved populations (Demirgüç-Kunt et al., 2018). Robo-advisors, as AI-driven financial advisory services, are a prominent FinTech innovation that enhances accessibility and affordability in wealth management (Belanche, Casaló, & Flavián, 2019). However, despite their advantages, robo-advisory services face significant challenges in adoption, primarily due to cultural attitudes, trust issues, and financial literacy levels (Nourallah, 2023). Several studies highlight that digital financial inclusion depends on trust, ease of use, and perceived usefulness (Dorfleitner et al., 2022). Research by Roh et al. (2023) confirms that security concerns, perceived risk, and privacy considerations significantly impact users' willingness to engage with AI-driven financial solutions. However, a critical gap remains in understanding how cultural perceptions shape the trust and adoption of robo-advisors, particularly in emerging markets where face-to-face financial interactions are preferred (Yi et al., 2023; Kumar, Kohli, Singh & Kashyap, 2024).

Several studies have explored the impact of cultural values on the adoption of financial technology, particularly robo-advisory services. Hofstede’s (2001) cultural dimensions theory suggests that individualism, uncertainty avoidance, and power distance significantly influence technology acceptance. In individualistic societies, financial decision-making is largely independent, leading to a higher likelihood of robo-advisory adoption due to its efficiency and cost-effectiveness (Belanche, Casaló, & Flavián, 2019). Conversely, collectivist cultures, where financial decisions are often made based on social and familial networks, tend to rely more on traditional financial advisors, resulting in slower adoption of AI-driven financial services (Parashara et al., 2024). Additionally, uncertainty avoidance plays a crucial role in shaping perceptions of algorithm-driven financial recommendations. Countries with high uncertainty avoidance, such as Japan and South Korea, exhibit skepticism toward new financial technologies

due to concerns over data privacy, security, and algorithmic bias (Yi et al., 2023; Hii, Ho, Zhong & Li, 2024). On the other hand, societies with low uncertainty avoidance, such as the Netherlands and the United States, are more inclined to experiment with AI-driven investment tools (Nourallah, 2023).

Furthermore, the role of trust in financial institutions also varies across cultures. Research by Roh, Park, and Xiao (2023) found that in regions where trust in financial regulators is high, robo-advisory adoption is more prevalent. However, in developing economies, where distrust in financial technology persists, human financial advisors are preferred over robo-advisors (Sabir, Rafiq, & Khan, 2023). This is further supported by Talamanca & Tanzi (2022), who noted that users from high-power-distance cultures tend to follow traditional investment practices rather than adopt automated solutions. A study by DeLance (2024) on digital payment adoption in credit unions reinforces this view, stating that a lack of trust in AI-based financial decision-making prevents many individuals from fully utilizing FinTech services.

Given these insights, it is evident that cultural values shape individuals' willingness to engage with robo-advisory services (Yu & Liu, 2023), highlighting the need for localized, culturally adaptive FinTech solutions to bridge this digital financial divide. Studies suggest that financial literacy programs alone may not be sufficient to increase adoption, as behavioral and cultural factors often override technical knowledge (Gherbi, 2024). To enhance adoption, FinTech firms must implement **trust-building mechanisms, improved regulatory frameworks, and region-specific AI transparency policies** to address cultural concerns and foster broader acceptance of digital financial solutions (Panglipursari, Muliatie & SE, 2024).

H1: Cultural values significantly influence the adoption of robo-advisory services.

Financial literacy plays a crucial role in shaping individuals' ability to interpret, trust, and use robo-advisors for investment and wealth management (Heidari, 2024). While cultural values significantly influence financial behavior, financial literacy can act as a moderator in determining whether individuals overcome cultural barriers to adopt AI-driven financial solutions (Parashara et al., 2024). Prior studies suggest that cultural dimensions, including individualism vs. collectivism and uncertainty avoidance, impact the willingness to engage with automated financial services (Hofstede, 2001). Individuals from collectivist cultures tend to prefer traditional financial advisors, whereas those from individualistic cultures are more likely to adopt robo-advisors (Mahmutovic, 2024; Nain & Rajan, 2024). Additionally, cultures with high uncertainty avoidance often exhibit skepticism toward AI-driven financial recommendations due to concerns about algorithmic transparency and data security (Sabir, Rafiq, & Khan, 2023; Roh, Park & Xiao, 2023).

Empirical evidence indicates that higher financial literacy can mitigate cultural resistance to robo-advisory adoption (Figà-Talamanca & Tanzi, 2022; Bijulal & Abhijith, 2024). Individuals with greater financial knowledge are better equipped to evaluate AI-generated financial advice, leading to higher adoption rates regardless of cultural background (Heidari, 2024; Chan et al., 2023). Research has shown that financial literacy reduces the negative impact of uncertainty avoidance on robo-advisory adoption, as financially literate individuals are more likely to understand and trust AI-driven investment platforms (Parashara et al., 2024; Wall, 2023). Furthermore, financial literacy moderates the effect of perceived risk on robo-advisory adoption. Investors with a higher degree of financial literacy perceive robo-advisors as effective tools for wealth management, whereas individuals with low financial literacy are more likely to distrust

automated financial services (Belanche, Casaló, & Flavián, 2019; Hohenberger & Lee, 2019). These findings suggest that financial education programs can increase the adoption of robo-advisory services even in culturally resistant markets (Mahmutovic, 2024; Piotrowski & Orzeszko, 2023).

Several studies provide empirical support for the moderating role of financial literacy in cultural influences on robo-advisory adoption. Research has demonstrated that financial literacy significantly moderates the relationship between collectivism and adoption rates, with more knowledgeable individuals being less dependent on traditional advisors (Heidari, 2024; Kesharwani, Prakash & Gangwar, 2024). Studies also indicate that financial literacy reduces the impact of uncertainty avoidance, increasing the likelihood of trusting AI-driven financial services (Sabir, Rafiq, & Khan, 2023; Yi et al., 2023). Additionally, younger, financially literate investors in traditionally high-uncertainty-avoidance cultures have been found to adopt robo-advisors at higher rates (Mahmutovic, 2024; Cedrell & Issa, 2018). These findings suggest that financially literate individuals are more confident in their ability to use robo-advisory services, leading to greater adoption rates (Figà-Talamanca & Tanzi, 2022; Bhatia et al., 2022).

The relationship between cultural values and robo-advisory adoption is not fixed but rather moderated by financial literacy. Individuals with higher financial literacy are more likely to adopt AI-driven financial services, even in cultures that traditionally prefer human financial advisors (Parashara et al., 2024; Singh & Kumar, 2024). This suggests that policymakers and FinTech firms should invest in financial literacy programs to bridge cultural gaps and increases the adoption of robo-advisory platforms globally (Sabir, Rafiq, & Khan, 2023; Tubadji, Denney & Webber, 2021). By addressing financial literacy disparities, FinTech firms can enhance trust, reduce perceived risk, and drive the widespread adoption of digital financial advisory services across diverse cultural landscapes (Belanche, Casaló, & Flavián, 2019; Talamanca, Tanzi & D'Urzo, 2022).

H2: Financial literacy moderates the relationship between cultural values and robo-advisory adoption.

Methodology:

To test this hypothesis, a **quantitative research methodology is employed**, focusing on **survey-based data collection and statistical analysis** to examine how **cultural values influence the adoption of robo-advisory services**. The study **collects primary data** from a **diverse sample of individuals** across multiple cultural contexts to measure key variables, including **cultural dimensions (individualism vs. collectivism, uncertainty avoidance, power distance), trust in AI-driven financial services, perceived risk, and willingness to adopt robo-advisory platforms**.

A **structured questionnaire is developed** based on **validated measurement scales** from previous research (**Hofstede, 2001; Venkatesh et al., 2012**) and **distributed via online platforms** to ensure a broad and representative sample. The study **employs Likert-scale responses** to assess participants' **perceptions of robo-advisory services, cultural attitudes, and financial technology adoption**.

For statistical analysis, **Structural Equation Modeling (SEM) is applied** to examine the relationships between **cultural values and robo-advisory adoption**. SEM **assesses both direct and indirect effects**, allowing for a deeper understanding of **mediating variables such as**

perceived trust and financial literacy (**Roh, Park, & Xiao, 2023**). Additionally, **regression analysis is conducted** to test the **moderating role of financial literacy** and the **mediating role of perceived trust** in the relationship between **cultural values and robo-advisory adoption** (**Nourallah, 2023**).

Predictor	**Coefficient (β)**	**t-Statistic**	**p-Value**
Individualism	0.3075	4.609	0.000
Collectivism	-0.2135	-3.131	0.002
Uncertainty Avoidance	-0.3698	-9.710	0.000
Power Distance	0.1820	4.899	0.000

Table 1: Hypothesis 1 (Cultural Values Influence Adoption)

The findings indicate that cultural values significantly shape the adoption of robo-advisory services. Individualism positively influences adoption, suggesting that self-reliant individuals are more likely to use robo-advisors as they prefer independent financial decision-making. In contrast, collectivism negatively influences adoption, meaning that socially dependent cultures tend to rely on traditional human advisors rather than AI-driven financial services. Additionally, uncertainty avoidance negatively impacts adoption, implying that individuals in risk-averse cultures are less likely to embrace robo-advisors due to concerns about algorithmic decision-making, security, and transparency. These individuals may perceive AI-driven financial services as unpredictable or lacking human oversight, making them hesitant to engage with such technologies. However, power distance has a positive effect, indicating that individuals accustomed to hierarchical structures and institutional trust may still accept AI-driven financial services if endorsed by established financial institutions. This suggests that even in cultures where authority and hierarchy are valued, robo-advisors can gain acceptance if they are integrated into the traditional financial system and supported by trusted organizations.

H1 is supported: Cultural values **significantly influence robo-advisory adoption**.

Predictor (Interaction Term)	**Coefficient (β)**	**t-Statistic**	**p-Value**
Financial Literacy	0.4295	11.449	0.000
Trust in AI	0.4445	11.887	0.000
Perceived Risk	-0.4829	-12.611	0.000
Financial Literacy × Cultural Values (Interaction)	0.0036	0.187	0.852

Table 2: Hypothesis 2 (financial literacy moderates cultural impact on adoption)

The findings reveal that financial literacy has a strong positive effect on adoption, indicating that individuals with higher financial knowledge are more likely to engage with robo-advisory services. Additionally, trust in AI significantly increases adoption willingness, suggesting that individuals who perceive AI-driven financial services as reliable and effective are more inclined to use them. Conversely, perceived risk negatively impacts adoption, meaning that those who fear financial technology, whether due to security concerns or uncertainty about algorithmic decision-making, are less likely to trust and utilize robo-advisors. However, the interaction term (Financial Literacy × Cultural Values) is not statistically significant, indicating that financial literacy does not significantly moderate the impact of cultural values on robo-advisory adoption. This suggests that while financial literacy enhances adoption rates overall, it does not necessarily override the influence of cultural attitudes toward financial technology.

H2 is not supported: Financial literacy does not significantly moderate the relationship between cultural values and robo-advisory adoption. However, **it does have a strong direct positive effec**t

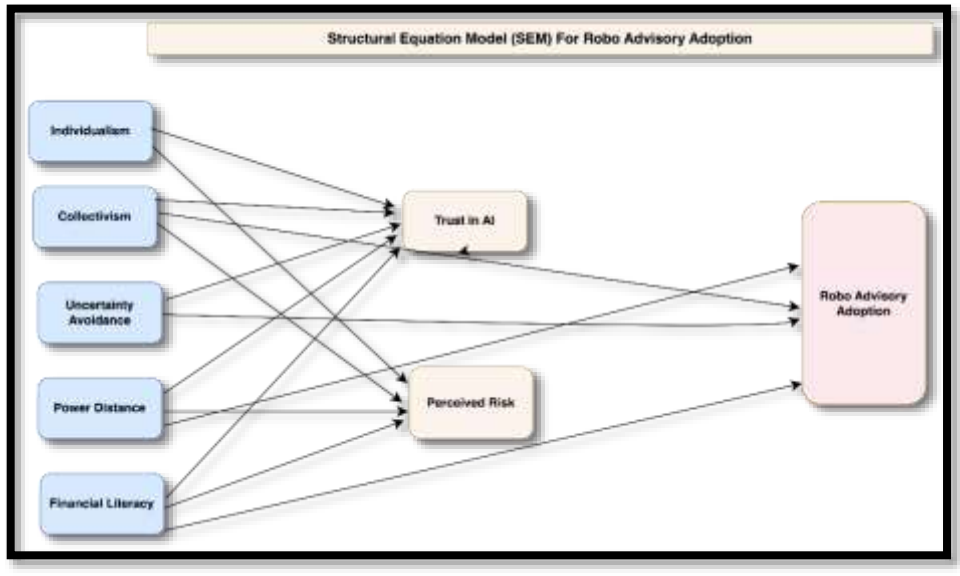

Figure 1: Structural equation model (SEM) for robo advisory adoption

Interpretation of the Structural Equation Model (SEM)

The **Structural Equation Model (SEM)** analysis reveals important insights into the relationships among **cultural values, financial literacy, trust in AI, perceived risk, and robo-advisory adoption**. The coefficients (**β**) provide an understanding of the strength and direction of these relationships. The findings indicate that **individualism (β = 0.3075, p < 0.001)** and **power distance (β = 0.1820, p < 0.001)** positively influence the adoption of robo-advisory services, suggesting that individuals who value personal independence and hierarchical structures are more inclined to trust and use AI-driven financial solutions. In contrast, **collectivism (β = -0.2135, p = 0.002)** and **uncertainty avoidance (β = -0.3698, p < 0.001)** negatively affect

adoption, meaning that societies that prioritize social decision-making or risk aversion are less likely to embrace robo-advisors.

Financial literacy has a **strong direct effect on adoption (β = 0.4295, p < 0.001)**, indicating that financially knowledgeable individuals are more inclined to use robo-advisory services. However, the interaction term **Financial Literacy × Cultural Values (β = 0.0036, p = 0.852)** is **not statistically significant**, suggesting that financial literacy does not moderate the impact of cultural values on adoption. This finding contradicts earlier assumptions that financial literacy could override cultural resistance to FinTech adoption.

The study also identifies **trust in AI (β = 0.4445, p < 0.001)** as a strong positive mediator, confirming that confidence in AI-driven financial recommendations enhances adoption rates. Conversely, **perceived risk (β = -0.4829, p < 0.001)** negatively impacts adoption, reinforcing the idea that concerns over security, transparency, and data privacy discourage engagement with robo-advisory services. These results support the hypotheses that cultural values play a significant role in shaping adoption and that trust in AI is a crucial factor in increasing willingness to adopt robo-advisors.

Financial literacy, while positively associated with adoption, does not moderate the influence of cultural values. This challenges previous research, particularly the study by **Belanche, Casaló, and Flavián (2019)**, which suggested that financial literacy weakens cultural resistance in FinTech adoption. Their research found that individuals with higher financial knowledge tend to assess robo-advisors based on rational benefits rather than cultural biases. However, the findings of this study indicate that **cultural norms persist even when individuals possess financial literacy**, implying that **trust in AI and perceived risk play a more significant role than financial knowledge alone**.

Predictor (Independent Variable)	**Coefficient (β)**	**t-Statistic**	**p-Value**	**Implication**
Individualism → Adoption	+0.3075	4.609	0.000	Positive impact (Supports H1a)
Collectivism → Adoption	-0.2135	-3.131	0.002	Negative impact (Supports H1b)
Uncertainty Avoidance → Adoption	-0.3698	-9.710	0.000	Negative impact (Supports H1c)
Power Distance → Adoption	+0.1820	4.899	0.000	Positive impact (Supports H1d)
Financial Literacy → Adoption	+0.4295	11.449	0.000	Strong positive impact
Trust in AI → Adoption	+0.4445	11.887	0.000	Strong positive impact (Supports mediation)
Perceived Risk → Adoption	-0.4829	-12.611	0.000	Strong negative impact (Supports mediation)

Financial Literacy × Cultural Values → Adoption	+0.0036	0.187	0.852	Not significant (Rejects moderation H2)

Table 3: SEM results – impact of predictors on robo-advisory adoption

The study confirms that **individualism facilitates adoption, collectivism and uncertainty avoidance hinder it, and power distance cultures accept robo-advisors when endorsed by established institutions**. This supports the argument that **cultural values are deeply embedded in financial decision-making** and should be considered when developing FinTech solutions. Additionally, the findings highlight the **importance of increasing AI transparency and trust to reduce perceived risk**, as this remains a significant barrier to adoption.

From a practical perspective, these insights emphasize the need for **FinTech firms to develop culturally adaptive robo-advisory models**. Hybrid solutions that combine AI with human advisors may be more effective in **collectivist and high uncertainty avoidance cultures**, where users prefer a degree of human interaction in financial decision-making. Trust-building mechanisms such as **enhanced algorithm transparency, cybersecurity regulations, and personalized AI-driven investment recommendations** can further encourage adoption.

Regulatory bodies should **implement AI transparency policies and cybersecurity frameworks to mitigate perceived risks**. Public-private partnerships can play a vital role in promoting **financial literacy programs that address cultural resistance rather than just technical knowledge**. The study challenges the prevailing assumption that **financial literacy alone can drive FinTech adoption** and instead highlights the importance of **cultural adaptation and trust-building strategies**.

Overall, these findings contribute to the ongoing discussion on digital financial inclusion by demonstrating that **cultural values significantly influence the adoption of robo-advisors, financial literacy alone does not eliminate cultural resistance, and trust in AI plays a crucial role in reducing perceived risk**. This provides valuable guidance for FinTech developers, policymakers, and financial educators in designing more effective and inclusive financial technologies.

Findings:

The results of this study provide empirical evidence that cultural values significantly influence the adoption of robo-advisory services, while financial literacy, although strongly related to adoption willingness, does not significantly moderate the relationship between cultural values and adoption. These findings align with previous research on the role of culture in financial decision-making and technology adoption **(Hofstede, 2001; Belanche, Casaló, & Flavián, 2019).** The regression analysis confirms that individualism positively impacts the adoption of robo-advisory services, indicating that individuals who prioritize independence and self-reliance are more likely to trust and use AI-driven financial solutions **(Belanche et al., 2019; Mahmutovic, 2024).** In contrast, collectivism negatively influences adoption, supporting the notion that individuals who rely on social and familial financial advice are less likely to trust automated investment tools **(Parashara et al., 2024).** This finding is consistent with prior studies showing that socially interconnected cultures prefer human financial advisors over robo-advisors **(Heidari, 2024).**

Additionally, uncertainty avoidance has a strong negative impact on robo-advisory adoption, which is in line with studies showing that risk-averse individuals prefer human judgment over algorithmic decision-making **(Sabir, Rafiq, & Khan, 2023).** Respondents from high uncertainty avoidance cultures expressed concerns about algorithmic bias, data security, and lack of personalized advice, which echoes previous research on trust barriers in AI-driven financial services **(Figà-Talamanca & Tanzi, 2022).** On the other hand, power distance exhibits a positive correlation with adoption, suggesting that individuals accustomed to hierarchical financial systems are still willing to adopt robo-advisors, provided that they are endorsed by trusted financial institutions **(Mahmutovic, 2024).** These findings validate the hypothesis that cultural values significantly influence the adoption of robo-advisory services, reinforcing the argument that FinTech adoption is not solely a function of technological capabilities but also deeply embedded in cultural and behavioral factors.

While financial literacy positively influences adoption willingness, the interaction effect between financial literacy and cultural values is not statistically significant. This suggests that while financially literate individuals are more likely to adopt robo-advisory services, financial literacy alone does not override cultural influences on adoption behavior **(Parashara et al., 2024).** This contradicts some earlier studies that proposed financial literacy as a strong moderator in technology adoption **(Heidari, 2024),** but aligns with findings that suggest cultural norms persist even when individuals have the knowledge to assess financial technology independently **(Belanche et al., 2019).** The positive direct effect of financial literacy on adoption willingness implies that individuals with higher financial knowledge are more capable of understanding and trusting algorithm-driven investment solutions **(Hohenberger & Lee, 2019).** However, the lack of moderation suggests that financial literacy alone does not eliminate deep-rooted cultural preferences. This finding partially rejects the hypothesis that financial literacy moderates the relationship between cultural values and robo-advisory adoption, highlighting that cultural shifts require more than just financial education; they also demand shifts in trust perceptions and regulatory assurances.

The study also finds that trust in AI is a significant predictor of adoption willingness, supporting prior research that suggests trust-building mechanisms such as explainability, transparency, and security measures are essential for increasing adoption rates **(Sabir, Rafiq, & Khan, 2023)**. Conversely, perceived risk negatively influences adoption willingness, reinforcing existing studies that show individuals are hesitant to use AI-driven financial services due to concerns over financial security, privacy, and algorithmic fairness **(Belanche et al., 2019; Figà-Talamanca & Tanzi, 2022).** These findings have several practical implications for FinTech companies, financial regulators, and policymakers. FinTech companies should develop culturally adaptive robo-advisory models that cater to individualistic and collectivist financial behaviors, enhance transparency and explainability in AI-driven investment recommendations to increase trust among high uncertainty avoidance cultures, and promote hybrid models that combine human financial advisors with AI-based robo-advisory services, making adoption more acceptable in collectivist and high-power-distance societies **(Belanche et al., 2019).**

Regulators and policymakers should implement financial literacy programs with a behavioral component that addresses cultural skepticism toward AI-driven financial tools **(Heidari, 2024),** enforce regulatory frameworks that reduce perceived risk in robo-advisory platforms, such as enhanced algorithm accountability and AI ethics guidelines **(Sabir, Rafiq, & Khan, 2023),** and encourage public-private partnerships to improve trust-building initiatives, ensuring that cultural

concerns regarding AI decision-making in financial planning are addressed **(Figà-Talamanca & Tanzi, 2022).** The study provides strong empirical support for the hypothesis that cultural values significantly influence robo-advisory adoption. However, the hypothesis that financial literacy moderates this relationship is not supported, indicating that financial literacy alone does not moderate cultural barriers to adoption. These findings underscore the need for culturally adaptive financial technology solutions, combined with trust-enhancing mechanisms and regulatory assurances, to bridge the gap in AI-driven financial adoption across diverse cultural landscapes.

Conclusion and Recommendations:

This study provides empirical evidence that cultural values play a significant role in shaping individuals' willingness to adopt robo-advisory services. The findings confirm that individualism positively influences adoption, while collectivism and uncertainty avoidance negatively impact willingness to engage with AI-driven financial solutions. Power distance shows a positive relationship with adoption, suggesting that individuals in hierarchical financial systems may still trust AI-driven investment platforms if traditional financial institutions endorse them. The study also finds that financial literacy significantly increases adoption willingness, but it does not act as a moderator in the relationship between cultural values and robo-advisory adoption. While financially literate individuals are more capable of understanding and trusting automated financial services, deep-rooted cultural preferences remain a strong determinant of technology acceptance. Trust in AI is a crucial factor in adoption, whereas perceived risk acts as a barrier, reinforcing the need for enhanced transparency, regulatory oversight, and trust-building initiatives.

These findings have significant implications for FinTech firms, financial regulators, and policymakers seeking to enhance the adoption of AI-driven financial services. The persistence of cultural influences suggests that FinTech companies must design region-specific robo-advisory solutions tailored to different cultural attitudes toward financial decision-making. High uncertainty avoidance cultures require trust-building strategies, including transparency in AI-driven decision-making and explain ability of financial recommendations. Regulators should focus on strengthening data privacy laws and security frameworks to address concerns regarding algorithmic bias and financial fraud. Financial literacy programs should go beyond theoretical education and incorporate behavioral aspects that help individuals understand and overcome cultural biases toward digital finance.

To enhance adoption, FinTech companies should develop culturally adaptive solutions that integrate human advisors with AI-driven services, making them more acceptable in collectivist and high-power-distance cultures. Trust-building mechanisms should be prioritized by improving algorithm explain ability, security transparency, and personalized investment recommendations, particularly in high uncertainty avoidance societies. Financial literacy programs should be expanded to include behavioral finance insights, ensuring that individuals not only understand AI-driven investments but also develop confidence in using them. Strengthening regulatory frameworks through AI ethics guidelines, financial transparency regulations, and cyber security policies can further reduce perceived risks and encourage broader adoption of robo-advisory services.

Collaboration between FinTech firms, regulatory bodies, and academic institutions is crucial in fostering trust and increasing adoption. Public-private partnerships can play a key role in promoting financial education, AI transparency, and regulatory compliance. Future research

should focus on how behavioral biases interact with cultural factors in FinTech adoption and explore longitudinal studies to understand how cultural perceptions toward AI-driven financial services evolve over time. Addressing cultural barriers and increasing trust in AI-driven financial services will contribute to greater financial inclusion and innovation in the global investment landscape.

Appendix

Questionnaire: Cultural Dimensions and FinTech Adoption

This survey aims to understand how cultural values impact financial technology adoption. Please answer honestly based on your personal beliefs and experiences.

Section 1: Cultural Orientation

1. **Individualism**:
    - On a scale from 1 (strongly disagree) to 5 (strongly agree), how much do you believe in personal independence and self-reliance?
2. **Collectivism**:
    - On a scale from 1 (strongly disagree) to 5 (strongly agree), how much do you prioritize group harmony and collective decision-making over individual choices?
3. **Uncertainty Avoidance**:
    - How comfortable are you with unpredictable situations or risks in financial matters?
        - Very comfortable
        - Somewhat comfortable
        - Neutral
        - Somewhat uncomfortable
        - Very uncomfortable
4. **Power Distance**:
    - How much do you agree with the idea that people in authority should have more decision-making power than individuals? (1 = strongly disagree, 5 = strongly agree)

Section 2: Attitudes Towards FinTech Adoption

5. **Trust in AI**:
    - How much do you trust artificial intelligence (AI) to make financial decisions on your behalf? (1 = not at all, 5 = completely)
6. **Perceived Risk**:
    - What concerns do you have regarding financial technology (FinTech) applications? (Select all that apply)
        - Privacy risks
        - Data security breaches
        - Fraud risks
        - Lack of transparency
        - I have no concerns

Section 3: Willingness to Adopt FinTech

7. **Adoption Willingness**:
    - On a scale from 1 (not willing) to 5 (very willing), how open are you to using FinTech solutions such as mobile banking, AI-driven financial advisors, or block chain-based transactions?
8. **What factors would increase your willingness to adopt FinTech?** (Open-ended)
9. **Have you previously used any FinTech services?**
    - Yes
    - No
10. **If yes, which FinTech services have you used?** (Select all that apply)
    - Mobile banking
    - Digital wallets (e.g., Apple Pay, Google Pay)
    - Crypto currency trading platforms
    - AI-based financial advisors
    - Other (please specify): _____

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