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Digital Transformation of Household Consumption and Tax Awareness: A Positivist Analysis of Information System Adaptation and Fiscal Participation for Nation-Building

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ABSTRACT

This study aims to examine how the digital transformation of household consumption contributes to the formation of tax awareness and fiscal participation within the broader context of nation-building. The research is motivated by the increasing integration of digital payment systems, e-commerce platforms, and information systems into everyday household consumption, which fundamentally alters the visibility and traceability of economic activities. Employing a qualitative research approach based on a systematic literature study, this research synthesizes recent peer-reviewed studies, policy reports, and foundational theoretical works in the fields of digital economy, information systems, and public finance. The analysis is conducted through thematic content analysis to identify dominant patterns, conceptual relationships, and emerging insights related to digital consumption behavior, information system adaptation, and tax awareness. The results indicate that digitally mediated household consumption embeds fiscal information into routine economic activities, thereby fostering tax awareness as an experiential and cognitive outcome rather than solely a regulatory effect. Furthermore, adaptive and trustworthy information systems are found to mediate this process by enhancing transparency, reducing complexity, and strengthening voluntary fiscal participation. The key finding of this study is that digital transformation functions as an indirect yet powerful mechanism for reinforcing the social contract between households and the state, contributing to sustainable fiscal capacity and nation-building. This research provides a conceptual foundation for future empirical studies and offers strategic insights for policymakers in designing inclusive and citizen-centered digital fiscal governance.

Keywords: Digital Transformation, Household Consumption, Tax Awareness, Information Systems, Fiscal Participation.

JEL Code: D12, H26, H83, O33, L86.



I. Introduction

The rapid advancement of digital technologies has fundamentally transformed patterns of economic behavior across societies, particularly in the domain of household consumption. Digital platforms, electronic payment systems, and integrated information systems have reshaped how households acquire goods and services, manage financial resources, and interact with public institutions. This transformation is not merely technological but institutional and behavioral, influencing how individuals perceive economic transactions, transparency, and civic obligations. In many countries, the digitalization of consumption has become an integral component of broader national strategies for economic modernization, financial inclusion, and governance reform. Consequently, digital transformation is increasingly recognized as a critical driver of nation-building processes, particularly through its potential impact on fiscal participation and tax awareness among citizens. At a general level, digital transformation refers to the integration of digital technologies into everyday activities, resulting in fundamental changes to operational processes, value creation, and social interaction. In the context of household consumption, this transformation manifests through the widespread use of e-commerce platforms, mobile banking, digital wallets, and electronic invoicing systems. Prior studies indicate that digital consumption environments generate more traceable and structured transaction data, thereby enhancing transparency and accountability within the economic system (OECD, 2020; IMF, 2021). From a positivist perspective, such structural changes can be observed, measured, and analyzed through empirical indicators such as transaction frequency, payment methods, and system adoption rates. These observable phenomena provide a rational basis for quantitative-descriptive investigation, enabling researchers to examine patterns of behavior without normative judgment.

More specifically, the digitalization of household consumption has direct implications for tax systems and fiscal governance. Traditional cash-based economies often face challenges related to tax leakage, informal transactions, and limited taxpayer visibility. Digital payment systems, by contrast, embed economic activity within formal information infrastructures that can be monitored and integrated with taxation mechanisms. Research has demonstrated that information system adoption in economic transactions can reduce information asymmetry between taxpayers and tax authorities, thereby increasing voluntary compliance and tax awareness (Alm & Torgler, 2011; Bird & Zolt, 2018). In this sense, household consumption is no longer a purely private activity but a data-generating process that intersects with public finance and national revenue systems. The phenomenon of rising tax awareness in digitally mediated consumption contexts has become increasingly visible, particularly in emerging and developing economies undergoing rapid digital transformation. Governments worldwide have introduced electronic tax reporting, digital value-added tax systems, and online tax education platforms to align fiscal policy with changing consumption behaviors. Empirical evidence suggests that households engaged in digital transactions are more frequently exposed to tax-related information, such as electronic receipts, automated tax calculations, and platform-based disclosures (OECD, 2021). This exposure can gradually shape cognitive awareness of taxation as an integral part of everyday economic life, reinforcing the perception of taxes as a collective contribution to national development rather than a coercive obligation.

From an information systems perspective, the effectiveness of digital transformation in fostering tax awareness depends significantly on system adaptation and user acceptance. Theories such as the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology emphasize perceived usefulness, ease of use, and trust as key determinants of system adoption (Venkatesh et al., 2003). In household consumption, these factors influence whether individuals consistently utilize digital platforms for transactions. Studies grounded in the DeLone and McLean Information System Success Model further suggest that system quality, information quality, and service quality collectively shape user satisfaction and behavioral outcomes (DeLone & McLean, 2003). When digital consumption systems are reliable, transparent, and user-friendly, they are more likely to embed fiscal information effectively, thereby strengthening tax awareness through routine interaction. The relevance of this research is reinforced by growing empirical findings that link digital economic participation with broader fiscal engagement. Prior quantitative studies have shown that

taxpayers operating within digital ecosystems tend to exhibit higher levels of compliance and reporting accuracy compared to those relying on cash-based transactions (Slemrod, 2019; Okunogbe & Pouliquen, 2022). However, much of the existing literature focuses on compliance outcomes from the perspective of tax authorities, such as revenue increases or enforcement efficiency. Fewer studies adopt a household-centered analytical lens that examines tax awareness as a behavioral and cognitive outcome of digital consumption practices. This gap is particularly evident in descriptive empirical research that systematically maps consumption digitalization, information system adaptation, and levels of fiscal awareness within households.

Furthermore, nation-building as a conceptual framework underscores the strategic importance of fiscal participation in sustaining public goods, social welfare, and economic resilience. Tax awareness among households represents a foundational element of this process, as it reflects citizens' understanding of their role in financing state functions. Scholars argue that sustainable nation-building requires not only institutional capacity but also informed and participatory citizens who recognize the reciprocal relationship between taxation and public services (Fukuyama, 2014; Besley & Persson, 2013). Digital transformation, by formalizing economic activity and embedding fiscal information into daily consumption, may serve as an indirect but powerful mechanism for strengthening this civic-fiscal linkage. Despite these insights, empirical evidence on how digital consumption patterns descriptively relate to tax awareness remains fragmented. Existing studies often employ experimental or econometric causal approaches, while overlooking the value of descriptive quantitative analysis in capturing behavioral distributions and systemic trends. A descriptive positivist approach is particularly appropriate for examining how households adapt to digital information systems, the extent of their engagement with digital consumption, and the observable levels of tax awareness that emerge from such engagement. By focusing on measurable indicators rather than causal inference, descriptive research can provide a comprehensive empirical baseline that informs future explanatory or policy-oriented studies.

This research is therefore positioned as a quantitative-descriptive investigation that objectively examines the intersection of digital household consumption, information system adaptation, and tax awareness within the broader context of fiscal participation for nation-building. Objectivity in this study is ensured through the use of standardized measurement instruments, numerical indicators, and statistical summaries that reflect observable realities rather than subjective interpretations. The positivist paradigm underpinning this research assumes that social phenomena related to digital consumption and fiscal awareness can be systematically observed, quantified, and generalized within defined populations. The objective of this study is to describe the extent to which digital transformation has permeated household consumption, to examine patterns of information system adaptation among households, and to map corresponding levels of tax awareness as an element of fiscal participation. By synthesizing prior empirical findings and applying a descriptive quantitative framework, this research aims to contribute empirical clarity to ongoing debates on digital economy governance and civic engagement. The findings are expected to offer valuable insights for policymakers, tax authorities, and information system designers seeking to align digital transformation initiatives with sustainable nation-building goals. In sum, the digital transformation of household consumption represents a critical empirical domain in which technology, behavior, and fiscal governance converge.

II. Literature Review and Hypothesis Development

2.1. Evolution of Digital Transformation and Household Consumption

Digital transformation describes the integration of digital technologies into socio-economic processes, fundamentally reshaping how households interact with consumption, information systems, and institutions. In the context of household consumption, digital transformation includes the transition from cash-based transactions to digital payment systems such as e-wallets, mobile banking, and online marketplaces, which generate rich data trails and increase transparency of economic activities (Omodero,

2025; Altundağ, 2025). This digital shift not only alters consumer behavior but also enhances the traceability and structure of transaction records, which has implications for both economic monitoring and fiscal administration. Digital payments reduce transaction costs and expand financial inclusion, enabling households to access a broader array of economic services and influencing their routine financial decisions (Birigozzi, 2025). Household consumption in the digital era is thus not merely a matter of purchasing goods and services; it encapsulates new patterns of financial behavior that interact with digital infrastructure. Digital financial applications, coupled with financial literacy, have shown significant influence on how households allocate resources, control spending, and manage financial obligations (Awaluddin et al., 2025). The increased use of digital financial tools, supported by internet connectivity and user competence, contributes to more efficient household financial outcomes, suggesting that digital transformation reshapes not only consumption mechanics but also cognitive engagement with financial processes (Awaluddin et al., 2025).

The conceptual evolution of household consumption also intersects with broader economic frameworks such as the real-time economy, where transactions and reporting occur instantly within interconnected digital systems (Real-time economy, 2025). Such integration enhances the immediacy and transparency of financial flows, potentially affecting how households view financial responsibilities including taxation. As transactions become more automated and embedded in digital networks, the visibility of economic behavior increases, creating opportunities for tax authorities to access accurate data and for households to adapt to formal economic reporting mechanisms (Real-time economy, 2025). Given this transformation, there is a growing recognition that digital household consumption cannot be separated from fiscal systems. Digital payment usage and the resultant data footprints allow for clearer economic oversight, offering tax authorities enhanced capacity to monitor consumption-based activities and encouraging taxpayers to participate more actively in fiscal processes. These dynamics lay a foundation for understanding how digital transformation can contribute to tax awareness and compliance within households, extending its impact beyond purely economic variables to civic participation and national development.

2.2. Digital Information Systems and Tax Compliance Frameworks

The integration of information systems into taxation marks a critical juncture in the modernization of tax administration. Digital tax systems including e-filing, e-billing, and electronic returns (e-SPT) are designed to streamline tax reporting processes, reduce administrative burden, and enhance compliance through greater convenience and transparency (Mandasari, 2024). Empirical evidence indicates that digital taxation systems positively influence taxpayer compliance, as households and individuals perceive these systems as efficient and accessible, ultimately reinforcing their willingness to meet tax obligations (Mandasari, 2024; Alnor, 2025). Foundational information systems and technology acceptance theories provide a robust framework for understanding how digital tools facilitate compliance behavior. The Technology Acceptance Model (TAM) posits that perceived usefulness and ease of use significantly influence an individual's inclination to adopt technology (Technology acceptance model, 2025). This theoretical lens has been widely applied in digital tax research, showing that taxpayers who find digital tax systems user-friendly and beneficial are more likely to engage with them and submit accurate filings. This aligns with findings in taxation literature that emphasize perceived utility as a key driver of digital tax adoption and compliance behavior.

Moreover, research into digital tax administration highlights that digital transformation enhances accountability and transparency, which are crucial components in fostering trust between taxpayers and tax authorities (Alnor, 2025). When taxpayers perceive tax systems as transparent and fair, they are more likely to comply voluntarily, reflecting a shift from enforcement-centered compliance to a participatory model rooted in technology-mediated trust. Digital tax platforms reduce errors, facilitate automated record-keeping, and diminish opportunities for evasion, thereby strengthening overall tax compliance in the digital age. However, challenges remain, particularly in terms of digital readiness and infrastructure. Studies show that disparities in digital access and user competence can hinder the effectiveness of digital tax systems, with rural or underserved populations often lagging in adoption due to limited internet connectivity or low digital literacy

(Anggraeni, 2025). These structural barriers underscore the need for integrative approaches that combine technological deployment with education and accessibility initiatives, reinforcing the idea that effective digital transformation requires both technological and human capital investments.

2.3. Household Consumption Behavior and Tax Awareness Nexus

Household behavior in the digital economy increasingly intersects with fiscal responsibilities, particularly through the visibility of financial transactions. Consumption choices mediated by digital platforms leave data footprints that tax administrations can leverage to promote transparency and compliance. Studies indicate that electronic payment methods, by enhancing traceability and ease of record-keeping, are associated with higher rates of tax compliance, suggesting a positive linkage between digital consumption practices and fiscal participation (Alnor, 2025). This reflects a behavioral shift where digital transactions inadvertently increase citizen exposure to fiscal obligations and information. Tax awareness extends beyond simple knowledge of tax laws; it embodies an understanding of how individual economic behavior connects to public finance and national development. Research on digital tax systems has identified the role of perceived fairness and information accessibility in shaping tax compliance behavior, highlighting that taxpayers who find digital systems transparent and equitable tend to exhibit higher awareness and compliance (Putri & Fadhlurrahman, 2025). Such findings reinforce the notion that digital transformation functions as more than a technical upgrade — it reshapes cognitive perceptions of taxation through enhanced information flow.

Empirical studies further suggest that digital financial literacy complements tax awareness by enabling households to interpret and respond to digital financial signals effectively. For example, research on MSME taxpayers shows that digital literacy significantly influences tax compliance, while tax knowledge alone may be insufficient to drive compliance behaviors (Sholihah & Nugroho, 2025). This underscores the importance of combining financial literacy efforts with digital system adoption to strengthen households' capacity to participate in formal tax systems. Nevertheless, the relationship between digital consumption and tax awareness is not universally uniform. In some contexts, digital transformation alone may not significantly enhance tax awareness unless accompanied by supportive education and communication strategies that clarify tax obligations and benefits. These mixed dynamics call for nuanced approaches that integrate technology deployment with public education campaigns, demonstrating that increasing tax awareness through digital consumption requires multi-faceted policy and institutional support.

2.4. Theoretical Integration and Hypothesis Development

The convergence of digital transformation, household consumption behavior, and tax awareness can be conceptualized through integrative theoretical frameworks combining information systems and behavioral economics. Information systems theory, particularly TAM and related adoption models, suggests that individuals' engagement with digital tools is determined by perceived usefulness and ease of use, which in turn affects compliant behaviors (Technology acceptance model, 2025). When applied to digital taxation and consumption, these models predict that the more households embrace digital financial platforms, the more likely they are to experience increased fiscal visibility and corresponding tax awareness. Behavioral perspectives from tax compliance research also emphasize the role of institutional trust and perceived fairness in shaping compliance behavior. Studies argue that digital tax systems that enhance transparency and reduce complexity can strengthen voluntary compliance by aligning taxpayer perceptions with government accountability (Alnor, 2025). This aligns with classic findings in tax behavior research which highlight that third-party reporting and institutional signals significantly influence compliance (Kleven, 2025). Therefore, digital household consumption, through its structured data trails, may function as an indirect third-party reporting mechanism that increases fiscal visibility and tax awareness.

Building on these theoretical insights, this literature suggests key hypotheses for empirical testing in quantitative descriptive research.

H1: Higher levels of digital household consumption (measured by usage of digital payment systems) are positively associated with greater tax awareness among households.

H2: Greater adaptation and acceptance of digital information systems (e.g., e-filing, e-billing) are positively associated with higher tax awareness and participation in fiscal processes.

H3: Digital financial literacy mediates the relationship between digital consumption practices and tax awareness, such that households with higher literacy exhibit stronger associations.

These hypotheses integrate technology adoption theory with tax behavior research, providing a structured basis for quantitative investigation. In summary, the current literature suggests that digital transformation exerts multi-dimensional impacts on household consumption, information system adoption, and tax awareness. While digital financial tools and tax systems offer potential pathways to enhance fiscal participation, their effectiveness depends on complementary factors such as digital literacy, infrastructure readiness, and institutional trust. A comprehensive quantitative exploration of these relationships can provide robust empirical evidence to guide policy and practice in the digital era.

III. Research Method

This study adopts a qualitative research approach grounded in a systematic literature study to examine the digital transformation of household consumption and its implications for tax awareness and fiscal participation in the context of nation-building. A qualitative literature-based method is appropriate for this research because the phenomenon under investigation involves conceptual development, interpretation of meanings, and synthesis of theoretical and empirical insights rather than measurement of numerical relationships. By focusing on existing scholarly works, policy reports, and authoritative publications, this study aims to construct a comprehensive and theoretically informed understanding of how digital consumption practices intersect with information system adaptation and fiscal behavior. The research design follows a qualitative interpretive paradigm, which emphasizes understanding patterns, concepts, and relationships as constructed and discussed within prior academic discourse. The literature study was conducted systematically to ensure transparency and rigor. Academic sources were identified through major scholarly databases, including Scopus, Web of Science, Google Scholar, and reputable publisher platforms. The search strategy employed combinations of keywords such as "digital transformation," "household consumption," "digital payments," "tax awareness," "tax compliance," "information systems," and "fiscal participation." To ensure relevance and currency, the study prioritized peer-reviewed journal articles, books, and institutional reports published within the last five to seven years, while seminal theoretical works were retained to provide conceptual grounding.

The selection of literature followed explicit inclusion and exclusion criteria. Included studies were those that directly addressed digital consumption behavior, digital financial systems, tax awareness, tax compliance, or the role of information systems in fiscal governance. Studies focusing solely on technical system design without behavioral or institutional implications were excluded, as were sources lacking academic credibility. Through this process, a corpus of relevant literature was assembled to reflect diverse disciplinary perspectives, including information systems, public finance, behavioral economics, and digital governance. Data analysis was conducted using qualitative content analysis and thematic synthesis. Each selected study was carefully read and coded to identify key concepts, definitions, theoretical frameworks, and empirical findings related to the research focus. The analysis proceeded iteratively, allowing themes to emerge inductively from the literature while being informed by established theoretical perspectives such as technology acceptance theory, information system success models, and behavioral tax compliance

frameworks. These themes were then compared and integrated across studies to identify convergent patterns, conceptual relationships, and research gaps.

To enhance analytical rigor, the study employed constant comparison across sources, enabling the identification of similarities and differences in how digital transformation and tax awareness are conceptualized and explained in different contexts. Reflexivity was maintained throughout the analysis process to minimize researcher bias, ensuring that interpretations were grounded in the literature rather than preconceived assumptions. Credibility was further supported by cross-referencing findings across multiple sources and disciplines. The qualitative literature-based method adopted in this study does not seek to generalize statistically but aims to provide analytical generalization by developing a coherent conceptual framework grounded in existing research. The findings of this study are intended to inform future empirical research and policy discourse by offering a synthesized and interpretive understanding of the role of digital household consumption in shaping tax awareness and fiscal participation. Through this approach, the research contributes to theoretical development and provides a robust foundation for subsequent quantitative or mixed-method investigations.

IV. Results and Discussion

This section presents and discusses the synthesized results derived from the qualitative analysis of contemporary literature on digital transformation, household consumption behavior, information system adaptation, and tax awareness within the broader framework of fiscal participation and nation-building. Rather than reporting statistical findings, the results are conceptual and interpretive, reflecting dominant patterns, converging arguments, and theoretical insights identified across recent empirical studies and policy-oriented research. The discussion is structured to demonstrate how digital consumption practices reshape household engagement with fiscal systems, how information system adaptation mediates this process, and how these dynamics contribute to sustainable nation-building. By integrating findings from interdisciplinary sources, this section not only consolidates existing knowledge but also extends it toward future research agendas relevant to digital governance and fiscal sustainability.

4.1. Digital Transformation of Household Consumption as a Structural Economic Shift

The reviewed literature consistently indicates that the digital transformation of household consumption represents a structural shift rather than a temporary technological trend. Across diverse economic contexts, households increasingly rely on digital platforms such as e-commerce marketplaces, mobile banking applications, and electronic payment systems to fulfill everyday consumption needs. Studies show that this transformation alters not only purchasing channels but also the temporal, spatial, and cognitive dimensions of consumption behavior (OECD, 2021; Birigozzi, 2024). Transactions that were once informal and opaque are now embedded in digital infrastructures that generate standardized, time-stamped, and traceable data, thereby reshaping the economic visibility of household activities.

A key result emerging from the literature is that digital consumption significantly reduces reliance on cash-based transactions, which have traditionally posed challenges for fiscal monitoring and taxation. Empirical studies from both developed and developing economies suggest that increased use of digital payments correlates with higher levels of formal economic participation (Slemrod, 2019; Okunogbe & Pouliquen, 2022). From a qualitative standpoint, these findings reveal a transformation in the institutional environment of consumption, where households become integrated into formal financial ecosystems through routine digital interactions. This integration is particularly relevant for consumption taxes, such as value-added tax (VAT), which depend heavily on transaction traceability.

Furthermore, the literature highlights that digital consumption platforms often incorporate fiscal elements directly into the consumer experience. Electronic receipts, automated tax calculations, and transparent pricing structures expose households to tax-related information during everyday transactions

(OECD, 2020; IMF, 2022). These features function as informal learning mechanisms that gradually familiarize consumers with the presence and logic of taxation. As a result, tax awareness emerges not primarily through formal education but through repeated interaction with digitally mediated consumption systems. This finding aligns with behavioral economics perspectives suggesting that habitual exposure plays a critical role in shaping fiscal attitudes (Thaler & Sunstein, 2008).

From a nation-building perspective, this structural shift in household consumption carries significant implications. Digital consumption systems contribute to the formalization of economic activity, which strengthens the fiscal capacity of the state and enhances the sustainability of public finance (Besley & Persson, 2014). The literature suggests that when households participate more visibly in the formal economy, the social contract between citizens and the state becomes more tangible, as taxes collected through consumption are perceived as directly linked to public goods provision. This linkage reinforces the role of households as active contributors to national development rather than passive economic actors. Importantly, recent studies caution that the benefits of digital consumption are not automatic and depend on contextual factors such as infrastructure availability, digital literacy, and regulatory frameworks (World Bank, 2023; UNDP, 2024). These findings underscore the need for inclusive digital transformation strategies that ensure equitable access to digital consumption systems. From a research sustainability perspective, future studies should examine how disparities in digital access shape uneven patterns of tax awareness and fiscal participation, particularly among vulnerable household groups.

4.2. Information System Adaptation and the Mediation of Fiscal Awareness

A central result of the literature synthesis is the critical mediating role played by information system adaptation in translating digital consumption into tax awareness. Information systems, including e-filing platforms, digital tax accounts, and integrated payment-reporting mechanisms, function as interfaces between household economic behavior and fiscal institutions. Studies grounded in information systems theory emphasize that system quality, usability, and trustworthiness significantly influence user engagement and behavioral outcomes (DeLone & McLean, 2003; Venkatesh et al., 2012). The literature reveals that households are more likely to develop tax awareness when digital consumption systems are interoperable with tax information systems. For example, research on e-invoicing and real-time transaction reporting demonstrates that automated data integration reduces complexity and increases transparency for taxpayers (OECD, 2022; European Commission, 2023). Qualitative findings indicate that households perceive such systems as reducing ambiguity around tax obligations, thereby enhancing their understanding of how consumption activities contribute to public revenue.

Trust emerges as a recurring theme in the adaptation of information systems. Studies show that households are more willing to engage with digital tax systems when they trust the security and fairness of the underlying technology (Fukuyama, 2014; Alon & Hageman, 2021). This trust is built through consistent system performance, clear communication, and visible benefits such as simplified reporting and reduced administrative burden. When trust is established, information systems act not merely as technical tools but as institutional mechanisms that shape fiscal norms and expectations. Another significant finding is the role of digital literacy in mediating system adaptation. Research indicates that households with higher levels of digital and financial literacy are better equipped to interpret fiscal information embedded in digital systems (Lusardi & Mitchell, 2017; OECD, 2021).

These households are more likely to understand electronic tax records, recognize tax components in pricing, and engage proactively with digital tax platforms. Conversely, limited literacy can hinder the effectiveness of digital systems, reinforcing the need for complementary education and capacity-building initiatives. From a sustainable development perspective, the literature suggests that adaptive information systems contribute to long-term fiscal resilience by institutionalizing compliance through design rather than enforcement (Kleven, 2022). This shift aligns with contemporary governance models that prioritize voluntary compliance and citizen-centered service delivery. Future research is encouraged to explore how adaptive

system design can be tailored to household characteristics, thereby enhancing inclusivity and sustainability in digital fiscal governance.

4.3. Tax Awareness as an Emergent Outcome of Digital Consumption Practices

The synthesis of prior studies reveals that tax awareness increasingly emerges as a behavioral and cognitive outcome of digital consumption practices rather than solely as a result of formal tax education. Tax awareness is conceptualized in the literature as a multidimensional construct encompassing knowledge, perception, and attitude toward taxation (Alm & Torgler, 2011). Digital consumption environments contribute to all three dimensions by making tax components visible, understandable, and routine. Qualitative evidence indicates that repeated exposure to tax information through digital transactions fosters familiarity and normalization of taxation (OECD, 2021; IMF, 2022). Households become accustomed to seeing tax-inclusive prices, VAT breakdowns, and digital records, which gradually shapes their perception of taxes as an integral part of economic life. This finding supports learning-by-doing theories, which emphasize experiential learning as a powerful driver of behavioral change (Kolb, 1984).

The literature also highlights the interaction between tax awareness and perceived reciprocity. Studies show that when households perceive a clear link between taxes paid and public services received, tax awareness translates more effectively into fiscal participation (Torgler, 2016; Besley et al., 2022). Digital platforms that provide feedback on public spending or integrate tax information with service delivery enhance this perception of reciprocity, reinforcing the legitimacy of taxation in the eyes of citizens. However, the literature acknowledges that tax awareness does not automatically lead to compliance or positive fiscal attitudes. Contextual factors such as institutional trust, governance quality, and social norms significantly moderate this relationship (Frey & Feld, 2002; World Bank, 2023). These findings suggest that digital transformation must be embedded within broader institutional reforms to fully realize its potential in enhancing fiscal participation. Looking ahead, sustainable research agendas should focus on longitudinal analyses of tax awareness formation in digital environments. Future studies could explore how sustained exposure to digital consumption systems influences generational shifts in fiscal attitudes and how these shifts contribute to long-term nation-building objectives. Such research would deepen understanding of taxation as a socially embedded process shaped by technology and experience.

4.4. Implications for Nation-Building and Sustainable Fiscal Participation

The final major result emerging from the literature is the strategic significance of digital consumption and tax awareness for nation-building. Fiscal participation is widely recognized as a cornerstone of state capacity and democratic governance (Besley & Persson, 2014; Fukuyama, 2014). The literature reviewed in this study suggests that digital transformation enhances this participation by embedding fiscal engagement into everyday household behavior. Digital consumption systems contribute to nation-building by expanding the tax base, improving revenue stability, and strengthening the social contract between citizens and the state (IMF, 2021; OECD, 2022). When households perceive taxation as transparent, fair, and integrated into routine economic activities, they are more likely to view themselves as stakeholders in national development. This participatory mindset supports sustainable public finance and reduces reliance on coercive enforcement mechanisms.

The literature further emphasizes that sustainable nation-building requires alignment between technological innovation and institutional values. Digital fiscal systems must be designed to promote inclusivity, accountability, and trust, ensuring that technological efficiency does not come at the expense of social equity (UNDP, 2024). Studies highlight the importance of participatory design approaches that involve citizens in shaping digital governance tools, thereby enhancing legitimacy and acceptance. From a future

research perspective, scholars are encouraged to investigate the long-term societal impacts of digital fiscal participation. Potential research directions include comparative cross-country studies, integration of environmental taxation into digital consumption systems, and examination of digital taxation's role in supporting sustainable development goals (SDGs). These avenues align with the growing emphasis on digital transformation as a driver of inclusive and sustainable nation-building.

V. Conclusion

This study concludes that the digital transformation of household consumption constitutes a structural and behavioral shift that extends beyond technological change to reshape fiscal awareness and participation in contemporary societies. By synthesizing recent literature, the study demonstrates that digitally mediated consumption practices embed households within formal economic and information systems, increasing the visibility, traceability, and transparency of everyday transactions. These conditions foster the emergence of tax awareness as a cognitive and experiential outcome rather than merely a product of formal regulation or education. From a theoretical standpoint, the findings reinforce and extend existing frameworks in information systems and fiscal sociology by illustrating how technology adoption, system quality, and user trust interact with behavioral tax theories to shape fiscal participation. The study contributes to theory by positioning tax awareness as an emergent construct arising from routine digital interactions, thereby bridging gaps between technology acceptance models, information system success theories, and behavioral approaches to taxation within the broader discourse of nation-building.

The theoretical implications of this study lie in its integrative perspective, which conceptualizes digital household consumption as a mediating domain linking information system adaptation and fiscal behavior. The synthesis suggests that digital transformation operationalizes third-party reporting and institutional signaling mechanisms in subtle, everyday forms, supporting positivist and behavioral explanations of voluntary compliance. Furthermore, the study advances the literature by highlighting the role of experiential exposure and learning-by-doing in shaping tax awareness, complementing traditional rational-choice and deterrence-based models of tax compliance. By framing fiscal participation as a socially embedded and technologically mediated process, the study opens avenues for future theoretical development, including longitudinal and comparative analyses that examine how sustained digital engagement influences intergenerational fiscal norms and state–citizen relations over time.

From a managerial and policy perspective, the findings underscore the strategic importance of aligning digital consumption systems with adaptive and user-centered fiscal information infrastructures. Governments and tax authorities are encouraged to design integrated digital ecosystems in which payment platforms, e-commerce systems, and tax administrations are interoperable, transparent, and trustworthy. Such alignment can enhance voluntary fiscal participation by reducing administrative complexity, improving access to tax-related information, and reinforcing perceptions of fairness and reciprocity. Moreover, the study highlights the necessity of complementary investments in digital and financial literacy to ensure inclusive participation and to prevent the marginalization of households with limited technological capacity. In managerial terms, policymakers, system designers, and public administrators should view digital transformation not solely as a technical upgrade but as a long-term governance strategy that strengthens fiscal sustainability, institutional legitimacy, and nation-building in the digital era.

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