THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE AND IT UTILISATION USING THE UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY AMONG CREDIT UNIONS IN INDONESIA

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ABSTRACT

Much research has been conducted to study IT acceptance in organisations by considering organisational culture as a determining factor. This study became the first to use the Competitive Value Framework (CVF) and quadrant driving value as an antecedent for individual perception from Unified Theory Acceptance and Use Technology (UTAUT). Data was collected using a questionnaire. Data from two hundred eighty-eight respondents were analyzed using the SEM-PLS method and SMART-PLS4 software. The analysis uses the Reflective Formative Second Order Two-Stage Approach, where organisational culture (OC) variables are analyzed using formative methods. In contrast, the other variables are analyzed reflectively. The linear regression calculations are conducted for each OC dimension to each UTAUT individual's perceptions to see the relationship. The results have a significant relationship between OC and BI via EE and SI, while OC to BI via PE is insignificant. In linear regression, all dimensions affect PE; the dimensions that affect EE are clan and adhocracy, while those that affect SI are hierarchical, market, and adhocracy dimensions. From these results, OC can affect individual perceptions of wanting to use information technology. These results will contribute to theories about culture, especially organisational culture and information technology. The result proved that OC can be an antecedent of individual perception. In addition, using value drivers from each dimension becomes a valuable input for survey methodology. These findings help decision-makers pay more attention to value drivers in organisations if they want to implement new technologies to avoid employee rejection.

Keywords: Individual perception, acceptance factors, organisational culture dimension, antecedent of UTAUT

APPROVAL

This is to certify that this thesis conforms to acceptable standards of scholarly presentation and is fully adequate, in quality and scope, for the fulfillment of the requirements for the degree of Doctor of Philosophy

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Professor Dr Siow Heng Loke

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Chairman, Examination Committee

(1 March 2024)

DECLARATION

I hereby declare that the thesis submitted in fulfilment of the PhD degree is my own work and that all contributions from any other persons or sources are properly and duly cited. I further declare that the material has not been submitted either in whole or in part, for a degree at this or any other university. In making this declaration, I understand and acknowledge any breaches in this declaration constitute academic misconduct, which may result in my expulsion from the programme and/or exclusion from the award of the degree.

Name: Indra Samsie

Signature of Candidate: **Date**: 1 March 2024

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATION

TAM	Technology Acceptance Model
UTAUT	Unified Theory of Acceptance and Use of Technology
CVF	Culture Value Framework
OCAI	Organisational Culture Assessment Instrument
SPSS	Statistical Product and Service Solution

CHAPTER 1

INTRODUCTION

1.0 Background of the Study

In recent years, numerous studies have examined the acceptance and use of information technology within organisations at an individual level (Dasgupta & Gupta, 2019; Handayani et al., 2018). Several theoretical models have been proposed to explain IT acceptance, including the Theory of Reasoned Action (TRA) (Al-Ayed, 2022; Fishbein & Ajzen, 1975), the Theory of Planned Behavior (TPB) (Ajzen, 1991; Tanveer et al., 2021), the Theory of Innovation Diffusion (Rogers, 1983; Yuen et al., 2021), the Technology Acceptance Model (TAM) (Davis, 1989; Sukwadi et al., 2022; Yuen et al., 2021), the Unified Theory of Acceptance and Use Technology (UTAUT) (Saprikis et al., 2022; Venkatesh et al., 2003; Venkatesh, 2022; Wei et al., 2021), Information System Success Model (DeLone & McLean, 2003; Petter et al., 2013; Tun, 2021), and End-User Computing Satisfaction (EUCS) (Aggelidis & Chatzoglou, 2012; Blagoev, 2021).

Among these models, the UTAUT and the TAM are the most widely used models in explaining IT acceptance and use within organisations (Bala et al., 2016; Handayani et al., 2018). However, studies have shown that the applicability of these models may be limited in organisations outside of the United States and in cultures with low levels of individualism (Bandyopadhyay & Fraccastoro, 2007; Esmaeilzadeh et al., 2011; Kumari and Biswas, 2023). One major limitation of these models is their need for more consideration of culture and its influence on IT acceptance. Although the UTAUT includes social influence as a factor, cultural and human factors are often overlooked or considered secondary to individual perceptions of technology performance. Further research has shown that there is a shift towards a more

sociocultural perspective in IT acceptance and use, indicating a need for more nuanced models that incorporate the role of culture and humans in measuring technology acceptance within organisations (Dasgupta & Gupta, 2019; Grublješič et al., 2019). The impact of culture on IT acceptance theories is particularly significant, as cultural values, norms, and beliefs can significantly influence individual attitudes toward technology adoption (Grublješič & Jaklič, 2015; Hong et al., 2014; Gopinath & Kasilingam, 2023; Petter et al., 2013).

The challenges in implementing IS / IT applications are not solely on technical and non-technical aspects, such as how individuals and organisations accept and use the application (Cohen et al., 2015; Del Giudice et al., 2023; Zhang et al., 2023). The relationship between organisational culture and IT acceptance has increased performance and promoted new technology. However, it is unable to identify the exact organisational values that significantly promote IT adoption in the organisation (Kaligis et al., 2023; Leidner & Kayworth, 2006); according to Lepore et al. (2018), specific values are decisive for people in IT. Several cultural values can influence the acceptance of technology in organisations. These values reflect the attitudes, beliefs, and priorities held by members of the organisation and can influence the extent to which new technologies are accepted and used. A culture encouraging innovation and experimentation tends to favor better technology acceptance, values such as a desire to create new solutions or a willingness to try new things can help stimulate interest in adopting new technologies. Perseverance, discipline, and commitment to work can affect patience and perseverance in learning and mastering new technologies. Organisations that value change and adaptability in the face of technological change will be more likely to accept new technologies. Flexibility and openness to change can be essential factors. Cooperation and collaboration among employees can facilitate

technology acceptance, especially if it enables collaboration. A culture that emphasizes the quality of work and results can influence how technology is assessed; technology that improves the quality of work or results will be more readily accepted. Security values, including data security and privacy, can influence how organisations view and manage technology; highly secure organisations will probably have stricter procedures before adopting technology; if the organisational culture emphasizes efficiency and productivity, technologies that improve work efficiency will get more significant support.

A culture that gives employees freedom and autonomy can influence how they receive technology. Technology that allows flexibility in work may be preferred by this culture. Social and ethical values can also influence the acceptance of technology; employees may reject technology perceived as violating their social or ethical values. A culture that encourages transparency and open communication can better facilitate understanding and acceptance of technology by sharing clear information about the technology. It is important to remember that the combination of these values will vary between organisations, and other factors, such as leadership, communication, and work environment, can also play an essential role in influencing the acceptance of technology. Therefore, a deep understanding of organisational culture and its values is critical to designing an effective technology acceptance strategy.

The Competitive Value Framework (CVF) is a model for assessing organisational culture that finds consensus across various organisations, distinct from employee inclinations toward prevailing values (Alquqa et al., 2023; Cameron & Quinn, 2011; Schulz, 2020). CVF uses an Organisational Culture Assessment Instrument (OCAI) to assess organisational culture. CVF is a framework used to understand how the core values held by an organisation can be a significant source of

competition. In the context of value competition, Cameron highlights that organisational values can become strong competitive differentiators if they are well-identified, managed, and integrated into business strategy. There are several steps in using the Competitive Value Framework: First, organisations must identify their core values, such as integrity, innovation, customer satisfaction, sustainability, or anything else the organisation considers essential. Second, understanding the values of competitors: organisations must also understand the values espoused by their competitors; it helps determine where organisations have a competitive advantage or must refine their values to compete better. Next is value integration. Those core values should be integrated into business strategy, taking concrete action to reflect and promote those values in every aspect of the business, including products, services, organisational culture, and communications. Employee engagement: employees must also understand and implement these values; they should see them as integral to their work and contribute to the organisation's success. Evaluation and measurement: the organisation must continuously measure how these values are applied and impact the organisation's success. This evaluation can help determine whether the values are a source of solid competition. This Competitive Value Framework helps organisations identify values that matter and turn them into clear competitive advantages. It is an approach that can help organisations create added value and differentiate themselves in the market.

In Indonesia, research focused on exploring how organisational culture affects individuals' intention to use information technology tends to approach organisational culture as a factor that moderates and mediates the impact, using well-established user acceptance models like UTAUT and TAM, as described in (Azlina & Nik Hashim, 2012; Batara et al., 2017; Fitriani, 2014; Purwanto & Loisa, 2020). According to (Lam

et al., 2021; Sapta et al., 2021 Saputra et al., 2021 Surbakti et al., 2020), organisation culture for further research must be placed as the first factor that influences the employees to use technology to increase their performance because each company has a different region and values. Hence, it reinforces the findings of (Bandyopadhyay & Fraccastoro, 2007) regarding the need for new methods to explain IT acceptance in countries with low individualism (IDV) levels; it is further estimated that culture enormously influences IT acceptance. In countries with a high degree of collectivity in their culture, the acceptance of technology can experience a distinctive influence compared to countries with a more individualistic culture. High collectivity culture is characterized by values such as cooperation, group solidarity, social harmony, and loyalty to the community.

Here are some potential impacts of high collectivity culture on technology acceptance: In countries with high collectivity, social norms and pressures from social groups can significantly impact individual behavior. When a new technology is introduced, individuals tend to consider the extent to which the use of that technology conforms to social norms and can improve the community's well-being. Groups in the community can help each other understand and adopt new technologies, creating a pattern of group-centered acceptance of technology. Group interests: acceptance of technology in the context of high collectivity may focus more on the benefits of technology to a group or community than on individual benefits. Society may be more accepting of technologies that are perceived to promote the common good than technologies that only benefit individuals. Leaders in a group or community may greatly influence or hinder technology acceptance; if leaders view technology as something that benefits the community, it can be an essential factor in acceptance. Welfare: high collectivity is often associated with concern for the common good rather

than individual interests. Therefore, technologies that support community development or solutions to shared problems may be more likely to be accepted. It is important to remember that culture is not the sole factor influencing technology acceptance. Other factors, such as technological infrastructure, regulation, digital literacy levels, and economic conditions, also play an essential role. However, understanding how a culture of high collectivity influences technology acceptance behavior can help companies and organisations devise more effective strategies in marketing and adopting technology in countries with this kind of culture.

Within the organisational context in Indonesia, research tends to emphasize culture as a decisive factor in evaluating employee performance quality and enhancement within an organisation (Sancoko et al., 2019; Wahyuningsih et al., 2019); In conclusion, experts in organisational and management studies posit that organisational culture significantly impacts an organisation's competitive readiness. Despite extensive research in this area, there has been a lack of substantial effort to establish organisational culture as a determinant of IT acceptance. This is surprising given that in Indonesia, culture plays a pivotal role in shaping employee quality and performance by influencing their mindset towards efficiency and effectiveness, thereby enhancing their performance. This is similar to the inclination of employees or individuals within an organisation to utilize tools to boost their performance. This has sparked researchers' interest in investigating whether culture, primarily organisational culture, can significantly influence the behavioral intention of IT usage within organisations.

This study investigates whether organisational culture becomes more important than individual acceptance factors in the behavioral intention of using IT in a specific organisation like a Credit Union (CU) and proposes a model that makes an

organisational culture an antecedent of the UTAUT, and this is also a novelty of this research.

The UTAUT model has been broadly used to examine the individual acceptance factor to use IT (Garone et al., 2019; Giri et al., 2019) and modified The UTAUT model by identifying a factor that serves as an antecedent of the model such as (Chiu & Hofer, 2015; Dasgupta & Gupta, 2019; L. Y. Pan et al., 2014; Weeger et al., 2016). In contrast to studies examining the role of individual acceptance factors, the research that examined organisational culture values on IT acceptance has yet to be limited (Dasgupta & Gupta, 2019). Research on technology acceptance in terms of organisational culture is not uncommon. However, there are several reasons why there may be an impression that this kind of research is not as much as other research: the study of technology acceptance from an organisational culture perspective is often more complex than research that is more limited to technical aspects, this is because this kind of research involves understanding the unique organisational culture, norms, values. Gathering relevant and representative data for organisational culture studies can be more complex and time-consuming, with observation and text analysis more complicated than survey-based research. The study of technology acceptance in terms of organisational culture requires a deep understanding of organisational culture, psychology, management, and information technology; this requires collaboration between different disciplines, which may be a challenge for researchers. Organisational culture varies significantly from one organisation to another, which means that the research results on accepting technology in organisational culture are often highly contextual and may not readily apply to other situations. While there are some challenges in researching technology acceptance in terms of organisational culture, this research remains important because organisational culture can

significantly impact the success or failure of technology implementation. Especially in an ever-changing digital age, understanding how organisational culture influences technology adoption is a valuable asset in managing change and achieving organisational goals. In addition, the more research that emerges in this field, the more practical guidance can be developed to help organisations face the cultural challenges of adopting technology and achieve greater success in their technology projects.

This research focused on organisational culture as an antecedent of the UTAUT model that will influence the individual's behavioral intention to use IT. Organisational culture can be interpreted in many ways. This research used a definition of organisational culture consisting of the dominant leadership style, symbols, language, and routines within the organisation and a definition of the organisation's success, which will make the organisation unique (Hoffman & Klepper, 2008). The importance of organisational culture in influencing an individual to have the behavioral intention to use IT has been examined in some research, such as the implementation of lean process (Rahimi & Gunlu, 2016), the implementation of CRM (Pakdil & Leonard, 2015), and the adoption of remote work platform (Sahut & Lissillour, 2023); these researchers found that organisational culture plays a significant role to the individual to success the implementation of IT system.

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given that in Indonesia, culture plays a pivotal role in shaping employee quality and performance by influencing their mindset towards efficiency and effectiveness, thereby enhancing their performance. This is similar to the inclination of employees or individuals within an organisation to utilize tools to boost their performance. This has sparked researchers' interest in investigating whether culture, primarily organisational culture, can significantly influence the behavioral intention of IT usage within organisations.

This study investigates whether organisational culture becomes more important than individual acceptance factors in the behavioral intention of using IT in a specific organisation like a Credit Union (CU) and proposes a model that makes an organisational culture an antecedent of the UTAUT, and this is also a novelty of this research.

A novel model was formulated and trialed on three Credit Unions in Sulawesi: Mekar Kasih Credit Union in Makassar, Saun Sibarung Credit Union in Tana Toraja, and Mentari Kasih in Kendari. The choice of Credit Unions as the research subject was based on several factors. First, according to Article 33 of the 1945 Constitution, the economy should consist of joint ventures rooted in kinship. In Indonesia, cooperatives are viewed as a means to enhance economic life through collaboration. Second, the evolution of Credit Unions: over the past 15 years, Credit Unions have experienced rapid growth and have emerged as an innovative and sustainable socio-economic movement in Indonesia. Membership in Indonesian Credit Unions has seen more than a tenfold increase, from 256,369 individuals in 2000 to 2,703,692 in 2015. Similarly, assets have grown over a hundred times from Rp 242 billion (US $19 million) to 24.7 trillion rupiahs (US $1.806 billion) during the same period. (Sumarwan & Taruk, 2016; Mauleny et al., 2018). Third, the government acknowledged the significant role of

credit unions (CUs) as the primary catalyst for empowerment in Indonesia. This recognition from the government became evident through numerous awards from various credit unions by the Office and Ministry of Cooperatives and Small and Medium Enterprises (Sumarwan & Taruk, 2016).

The growth of Credit Unions (CU) in Indonesia is closely tied to the evolution of CU in West Kalimantan, particularly the BKCU Puskopdit Kalimantan, a secondary CU established in 1988. It has attracted 43 primary CUs, with a membership of 458,286 individuals spread across nearly all of Indonesia. With savings and loan services as its soul, CU presents various products to improve its member's welfare. CU has experienced significant development in Indonesia. The basis for developing credit unions in Indonesia is that the Indonesian government has issued more explicit regulations related to savings and loan cooperatives, including credit unions, to ensure safer and more controlled operations. Relevant authorities such as the Ministry of Cooperatives and SMEs and the Financial Services Authority (OJK) play a role in supervising and regulating this sector. Several credit unions in Indonesia have established partnerships with other financial institutions, including banks and fintech, to expand access to financial services and increase innovation in their services, in addition to providing financial education to its members, helping to improve financial literacy in the community and helping its members to manage their finances better. CU has a social commitment and focuses on community empowerment, providing loans to small and medium enterprises (SMEs) that support local economic growth. Like the rest of the financial sector, credit unions are also increasingly adopting technology and digitalization to improve operational efficiency and provide better services to their members. Despite the positive developments, CUs in Indonesia face various challenges, including competition with other financial institutions, tighter regulations,