

Technological Adaptation Amidst Cultural Resilience: The Phenomenon of Cell Phone Ownership Among the Baduy Dalam Community

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ABSTRACT

This study examines the phenomenon of cell phone ownership among the Baduy Dalam community as a form of adaptation to technological developments amidst their consistent adherence to traditional customs. The study aims to analyze the significance of cell phone ownership, the factors influencing its use, and the process of balancing adherence to tradition with the utilization of technology. The method used was a literature review, examining relevant journals, books, theses, and scientific documents, which were then analyzed descriptively through synthesis and interpretation. The results indicate that cell phone ownership is a form of selective cultural adaptation undertaken to meet communication, economic, and informational needs without disregarding traditional values. These findings affirm that traditional customs and modernity can coexist through cultural negotiation and enrich the study of technological adaptation among indigenous communities from the perspective of sociocultural change.

INTRODUCTION

The development of information and communication technology has become one of the main factors driving social change across various segments of society. Digital transformation is not limited to urban communities with widespread access to technology but is also beginning to reach indigenous communities traditionally known for preserving their value systems and traditions from generation to generation. This situation demonstrates that modernization is not necessarily synonymous with the loss of cultural identity; rather, it can introduce new dynamics in the relationship between tradition and technological advancement. One indigenous community worth studying in this context is the Baduy people in Kanekes Village, Lebak Regency, Banten Province. The Baduy are known as one of Indonesia's indigenous communities that still uphold a way of life based on *pikukuh adat*—a set of rules governing nearly every aspect of life, from the relationship between humans and nature, to social norms, to the use of technology. In their daily lives, the Baduy people prioritize a simple way of life, maintaining balance with nature, and limiting the use of various forms of modern technology as part of their efforts to preserve their customs and cultural identity (Oktaviani, 2016; Sujana, 2020). According to data from the Lebak Regency Central Statistics Agency, the population of Kanekes Village has shown an upward trend in recent years. In 2024, the population reached 12,200 people spread across the Baduy Dalam (Tangtu) and Baduy Luar (Panamping) regions. Although the population continues to grow, the Baduy Dalam community has maintained its social structure, traditional leadership system, and various customs passed down through generations. This situation demonstrates that the Baduy community has the ability to preserve its cultural continuity amid increasing interaction with the outside world. On the other hand, the development of information technology has given rise to an interesting phenomenon. Various previous studies indicate that some members of the Baduy community have begun to utilize communication technologies, including cell phones, to meet specific needs. The use of these technologies is generally related to communication, the trade of handicrafts, and interactions with the government, researchers, and tourists. This phenomenon demonstrates that the adoption of technology does not always occur fully but rather through a selective process that considers compatibility with prevailing traditional values.

A number of studies have examined the Baduy community from various perspectives, such as cultural preservation, customary legal systems, social change, cultural communication, and the use of social media among the Baduy Luar (Zid et al., 2017; Sabilah et al., 2024; Raisya et al., 2025). However, research specifically examining the phenomenon of cell phone ownership among the Baduy Dalam community as a form of cultural adaptation to technological developments remains relatively limited. Most previous studies have focused more on social change in general, without explaining how the Baduy Dalam community negotiates between adherence to customary norms and the need to utilize communication technology. This situation indicates a research gap that requires further investigation. Based on this, this study aims to analyze the significance of cell phone ownership among the Baduy Dalam community,

identify the factors driving its use, and explain the process of negotiation between traditional customs and technological developments through a literature review approach. This study is expected to contribute to the development of research on cultural adaptation, digital anthropology, and social change among indigenous communities in Indonesia. Furthermore, the findings are expected to serve as a reference for academics, government officials, and the general public in understanding that adaptation to technology does not necessarily erase cultural identity but can occur through selective mechanisms that remain grounded in local values.

LITERATURE REVIEW

Supporting Theories

Diffusion of Innovations

The Theory of Innovation Diffusion proposed by (Everett M. Rogers, 1983) explains that the process of adopting an innovation occurs through five stages: knowledge, persuasion, decision, implementation, and confirmation. In the context of indigenous communities, this process is not straightforward but is influenced by traditional authorities, collective norms, and prevailing cultural values.

The Theory of Cultural Adaptation

According to John W. Berry (1997) when a group encounters a new culture or influence, the resulting response is not always outright rejection or complete acceptance, but rather a process of cultural adaptation. Berry argues that this adaptation process consists of four forms: assimilation, separation, integration, and marginalization.

Previous Research

Several previous studies have shown that the Baduy community has the ability to maintain its cultural identity amid increasingly dynamic social developments. (Zid et al., 2017) explain that the Baduy community's interaction with the outside world has given rise to various forms of social change; however, these changes do not automatically erase the traditional values that form the community's identity. A study (Oktaviani, 2016) emphasizes that pikukuh serves as the primary foundation for regulating all aspects of Baduy life, including their approach to modern technological advancements. Meanwhile, a study (Sabilah et al., 2024) indicates that the use of social media among the Baduy Luar community is selective, serving as a means of communication and promotion of local products without abandoning their cultural values. Nevertheless, most of these studies have focused primarily on social change, cultural communication, or the use of social media among the Baduy community in general or the Baduy Luar community specifically. Studies specifically examining the phenomenon of cell phone ownership among the Baduy Dalam community as a form of negotiation between modernity and adherence to tradition remain relatively limited. Therefore, this study aims to fill this gap through a synthesis of relevant literature to provide a more comprehensive understanding of the dynamics of technological adaptation within the Baduy Dalam community.

Table 1 Synthesis of Previous Research

Researcher	Research Focus	Key Findings	Research Gap
(Zid et al., 2017)	The dynamics of social change in Baduy society	Interaction with outside communities drives social change without eroding the Baduy community's cultural identity.	The phenomenon of cell phone ownership as a form of adaptation to technological developments has not yet been specifically addressed.
(Oktaviani, 2016)	The role of traditional customs in the lives of the Baduy community	Traditional customs serve as the primary guide in regulating the social and cultural life of the Baduy community.	The connection between traditional customs and the process of adapting to technological developments has not yet been explained.
(Sabilah et al., 2024)	The Use of Social Media Among the Baduy Luar Community	Social media is used selectively to support communication and the promotion of local products without neglecting cultural values.	The study is limited to The Baduy Luar community and therefore does not yet describe the conditions of the Baduy Dalam community.
(Raisya et al., 2025)	The Application of Customary Law in the Baduy Community	Customary law plays a role in maintaining order and harmony in the lives of the Baduy community.	The study has not yet examined the use of communication technology from the perspective of customary law or cultural adaptation
This study	Cell phone ownership among the Baduy Dalam community as a form of cultural adaptation	To significance analyze of cell phone ownership, the factors underlying their use, and the negotiation process between traditional leaders and technological developments.	Fills a research gap regarding the adaptation of communication technology among the Baduy Dalam community through the perspectives of cultural adaptation and anthropology.

Source: Data processed by the author, 2026

Theoretical Framework

The conceptual framework of this study is based on a synthesis of the Theory of Innovation Diffusion, Cultural Adaptation Theory, and findings from previous research on the Baduy community. This conceptual framework describes the process of adaptation to communication technology among the Baduy Dalam community, which occurs through a selection mechanism based on traditional leaders. Thus, technological developments are not accepted directly but rather through an adjustment process that results in selective forms of cultural adaptation.



Figure 1. Conceptual Framework

METHODOLOGY

Negotiation of Modernity This study employs a literature review method using a descriptive qualitative approach. This method was chosen to gain a comprehensive understanding of the phenomenon of cell phone ownership among the Baduy Dalam community through a synthesis of various published research findings. A literature review allows researchers to identify, compare, and interpret various findings from previous studies, thereby providing a complete picture of the dynamics of the relationship between technological development and adherence to tradition among the Baduy Dalam community. According to (Creswell, 2010) a literature review is a systematic process of identifying, evaluating, and synthesizing various relevant scientific sources to explain a research phenomenon. Therefore, this study does not generate primary data but instead utilizes secondary data derived from various scientific publications.

Data Sources

The research data consists of secondary data obtained from various scientific sources relevant to the research focus, including national and international journal articles; scientific books; seminar proceedings; undergraduate theses and master's theses; government documents; publications from the Central Statistics Agency (BPS); and other documents related to the Baduy community, traditional customs, and the development of communication technology. Sources were selected based on several criteria: (1) relevance to the research focus; (2) origin from credible and academically accountable sources; (3) publication within a relevant timeframe; and (4) inclusion of information regarding the Baduy community, cultural adaptation, or the use of communication technology. Most of the literature was obtained through scientific databases such as Google Scholar and Garuda using the keywords "Baduy Dalam," "traditional customs," "cell phones," "communication technology," and "cultural adaptation."

Data Collection Methods

Data collection was conducted through a systematic literature review of various scientific publications relevant to the research focus. The literature was obtained through scientific databases using predetermined keywords and then selected based on the relevance of the title, abstract, and discussion content, as well as its alignment with the research objectives.

Data Analysis Techniques

The data were analyzed using content analysis. This technique involves identifying the main concepts found in each piece of literature, then grouping the

information based on themes relevant to the research objectives, namely the meaning of cell phone ownership, the factors driving its use, and the negotiation process between traditional leaders and technological developments. Next, the analysis results were interpreted through a synthesis process to identify patterns of relationships among findings from previous studies. The analysis was conducted by relating these findings to Rogers' Theory of Innovation Diffusion and Cultural Adaptation Theory to give a more comprehensive understanding of technological adaptation within the Baduy Dalam community.

RESULTS AND DISCUSSION

In the context of Baduy society, customary law governs nearly every aspect of life, ranging from dress codes and agricultural activities to conflict resolution (Raisya et al., 2025). The Baduy people believe they were the first to be created as the inhabitants of the world and reside at the "pancer bumi" (center of the earth) (Sujana, 2020). However, the Baduy have several rules commonly referred to as "Pikukuh Adat." The Baduy Pikukuh governs all institutions within the Baduy region, which are led by three Pu'un (Tuasalamony, 2024). The Pu'un are considered sacred figures, and the local community believes that they are descendants of ancestors who have a duty to always preserve the center of the earth and must be able to guide all residents to strictly adhere to the Pikukuh Adat and the principles or way of life that must be followed precisely. A journal article (Sutisna et al., n.d.) explains that Baduy customary laws prohibit a number of actions, including: (1) Altering the course of rivers, such as by creating fish ponds or drainage systems; (2) Altering the natural topography of the land, such as by digging wells or leveling the ground; (3) It is forbidden to enter the protected forest to cut down trees; (4) It is forbidden to use chemical technologies; (5) It is forbidden to engage in plantation farming; (6) It is forbidden to raise four-legged animals, such as goats and water buffalo; (7) It is forbidden to clear land for farming indiscriminately; (8) It is forbidden to dress inappropriately.

Cell Phone Ownership as a Form of Cultural Adaptation

Advances in communication technology have influenced various social groups, including indigenous communities that have long been known for upholding traditional value systems. Based on a synthesis of previous research, cell phone ownership among some members of the Baduy Dalam community cannot be interpreted as a deviation from traditional customs or as an indicator of comprehensive modernization. Rather, this phenomenon reflects a process of selective cultural adaptation tailored to the community's needs without altering the core values that define Baduy cultural identity. From a cultural adaptation perspective, communities do not always unconditionally accept or reject an innovation. The process of acceptance occurs through a filtering mechanism that evaluates new elements based on their benefits, necessity, and compatibility with prevailing norms. This is evident among the Baduy Dalam community, which continues to regard traditional customs as the primary guideline for determining the limits of communication technology use.

Findings from various studies indicate that cell phones are perceived more as communication tools than as symbols of modernity. Their use is functional

and limited to when necessary, particularly when interacting with communities outside the traditional territory. Thus, technology does not replace the cultural value system but is positioned as a tool that supports specific activities without undermining the principle of a simple lifestyle that characterizes the Baduy community. These findings align with Rogers' (1983) Theory of the Diffusion of Innovations, which explains that the acceptance of an innovation is influenced by perceptions of its benefits. However, among the Baduy Dalam community, this process is not entirely individualistic, as described by Rogers. Decisions to accept or restrict the use of technology are more heavily influenced by collective norms and traditional authority, meaning that the process of innovation adoption occurs through more complex social mechanisms.

Factors Driving Cell Phone Use

A synthesis of various literature sources indicates that cell phone use among the Baduy Dalam community is influenced by several key factors: communication needs, economic activities, and access to information. These three factors are interrelated in encouraging the community to utilize technology without compromising adherence to traditional customs.

a. Communication Needs

The increasing interaction of the Baduy community with the government, researchers, tourists, and relatives living outside the traditional territory has led to a growing need for communication. Under these circumstances, cell phones are used as a means to expedite the transmission of information, facilitate coordination, and maintain social relationships with outsiders. Nevertheless, various studies indicate that cell phone use is not unrestricted. Their use occurs more frequently when community members are outside the Baduy Dalam area or in situations related to specific needs. This indicates that technology is viewed as a tool to support communication activities, not as part of a shift in the community's lifestyle. This situation demonstrates that the Baduy community is adapting to technological advancements without altering the cultural orientation that has been passed down through generations.

b. Economic Needs

In addition to communication needs, the growth of economic activities has also become a factor driving the use of cell phones. The Baduy people's traditional products—such as woven fabrics, woven bags, honey, and various other handicrafts—are becoming increasingly well-known to the wider public, thereby requiring more effective communication channels. Various studies indicate that communication technology plays a role in facilitating coordination with consumers, expanding marketing networks, and accelerating the dissemination of information about the products produced by the community. Thus, cell phones serve as tools to support economic activities without altering the traditional production patterns that are still upheld. This phenomenon indicates that the use of technology is directed more toward improving the efficiency of economic communication than toward fostering a culture of consumerism. In other words, technology is utilized to the extent that it provides practical benefits and does not conflict with traditional values.

c. Access to Information

Advances in information technology have also increased the community's need for various types of information regarding education, health, and economic opportunities. Through cell phones, the community has the opportunity to access information that was previously difficult to obtain. However, various studies indicate that the information obtained is not automatically accepted. The Baduy community continues to apply a selection process based on the values enshrined in the *pikukuh*. Information deemed beneficial is utilized, while information perceived as conflicting with cultural values tends not to be adopted. This situation indicates that the process of technological adaptation occurs through a mechanism of "cultural filtering" – that is, the cultural screening of new elements before they are accepted into community life.

Negotiation Between the Pikukuh and Modernity

One of the findings of this study is the existence of a negotiation process between technological development and the traditional value system prevailing in the Baduy Dalam community. This negotiation does not reflect a conflict between tradition and modernity, but rather a cultural mechanism that allows the community to meet practical needs without neglecting the cultural identity passed down through generations. In practice, the use of cell phones is contextual and remains within boundaries acceptable to the indigenous community. Technology is used when it provides tangible benefits for communication or economic activities, but it is not integrated into daily life. Thus, the Baduy Dalam community continues to uphold the principles of a simple lifestyle, respect for nature, and adherence to *pikukuh* as the foundation of social life.

These findings indicate that modernity does not necessarily erase local culture. On the contrary, indigenous communities have the capacity to determine the space, time, and form of technology use in accordance with their own value systems. This situation demonstrates that social change can occur through a process of selective adaptation – that is, the acceptance of new elements deemed beneficial without erasing cultural identity – in line with Cultural Adaptation Theory. The adaptation process observed among the Baduy Dalam is clearly closer to "Integration" – that is, accepting technology as needed while maintaining traditional customs. Meanwhile, according to Rogers' Theory of Innovation Diffusion, the process of technology adoption is influenced not only by the characteristics of the innovation but also by social legitimacy derived from traditional customs and the authority of traditional leaders. Thus, the process of technological adaptation among indigenous communities is best understood as the result of an interaction between practical needs, cultural norms, and social control mechanisms. From an ethnographic perspective, these findings demonstrate that the behavior of the Baduy Dalam community in using cell phones cannot be understood solely as technological adoption, but rather as a culturally meaningful practice. In this context, the use of cell phones is not viewed as a violation of customary law, but rather as the result of the community's collective interpretation of the demands of the times, which remains guided by the values of *pikukuh*.

CONCLUSION AND RECOMMENDATIONS

This study shows that cell phone ownership among the Baduy Dalam community is a form of selective cultural adaptation, not an indicator of declining adherence to traditional customs. Based on a synthesis of various literature sources, the use of cell phones is driven by communication needs, economic activities, and access to information, while continuing to uphold traditional values as the primary guideline in determining the limits of technology use. This indicates that the Baduy Dalam community does not entirely reject technological development but rather engages in a process of cultural negotiation by filtering new elements to align them with traditional customs. Theoretically, the findings of this study confirm that the relationship between modernity and local culture is not always contradictory. Among the Baduy Dalam community, technology adoption occurs through a process of cultural adaptation that considers practical benefits, social legitimacy, and alignment with traditional values. Thus, this study contributes to expanding research on cultural adaptation, digital anthropology, and the dynamics of social change among indigenous communities in the era of digital transformation.

Recommendations

Based on the research findings, the following recommendations can be made.

1. For the Government
The government is expected to formulate policies that support the preservation of traditional *pikukuh* values as part of efforts to maintain the social and cultural uniqueness of the Baduy Dalam community amid technological developments.
2. For Indigenous Communities
The use of communication technology should continue to take into account the values embodied in traditional customs so that adaptation to technological advancements does not diminish the cultural identity of the Baduy community.
3. For Academics
Research on indigenous communities needs to be developed through a multidisciplinary approach that integrates perspectives from anthropology, communication, sociology, and digital transformation to achieve a more comprehensive understanding.
4. For Future Researchers
Future research is recommended to use an ethnographic or field study approach so that it can provide a more in-depth description of the experiences of the Baduy Dalam community in interpreting the use of communication technology in their daily lives.

FURTHER STUDY

This study employed a literature review method, meaning all findings are based on a synthesis of relevant scientific sources. Therefore, this study does not directly describe the empirical experiences of the Baduy Dalam community. Additionally, the availability of research specifically addressing cell phone ownership among the Baduy Dalam community remains relatively limited, so

the interpretation of this study relies on the results of previously available research. Future research is expected to strengthen these findings through field observations, in-depth interviews, and ethnographic approaches so that the dynamics of technological adaptation among the Baduy community can be understood more comprehensively.

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