

# Business Opportunities in Mobile Phone Repair Services Amidst Digital Dependency in Education, Business, and Public Communication

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## Abstract

The development of digital technology has increased people's dependence on smartphones to support their education, business, and communication activities. High smartphone usage intensity increases the risk of device damage, creating a continuous need for mobile phone repair services. This study aims to analyze the business opportunities of mobile phone repair amidst digital dependency. A qualitative approach with a descriptive qualitative research design was employed, involving in-depth interviews, direct observation, and documentation at the HR Servis HP counter in Kencong, Jember, East Java. Data analysis followed the Miles and Huberman model, supplemented by triangulation for validity. The findings indicate that digital dependency has led to a steady and recurring demand for mobile phone repair services. Mobile phone repair businesses contribute to cost efficiency by reducing the need to purchase new devices and extending smartphone lifespan, while also contributing to e-waste reduction. The study concludes that mobile phone repair businesses offer significant and sustainable opportunities, playing a vital role in supporting education, business, and communication activities in the digital age. From an Islamic economic perspective, this business model aligns with principles of avoiding wasteful spending (*israf*) and environmental stewardship (*khalifah*).

**Keywords:** Mobile Phone Repair Business; Digital Dependency; Education; Business; Public Communication.

## 1. Introduction

The development of digital technology has transformed the activity patterns of Indonesian society across the fields of education, business, and communication. Smartphones have become the primary device used for online learning, digital marketing, online transactions, and everyday social communication. Societal dependence on mobile devices has grown increasingly alongside the intensity of digital technology use (Muhammad Fikri & Ahmad Junaidi, 2024). This phenomenon is particularly compelling to examine, as the continuity of digital activities is highly dependent on the operational condition of the devices being used. Previous research by Sadikin and Hamidah (2020) affirms that digital activities, particularly in education, require mobile devices that function reliably at all times so that the learning process is not disrupted. This underscores the strategic role of smartphones in supporting the digital activities of modern society.

Various studies conducted in Indonesia indicate that the growing intensity of digital activities among the public has driven the growth of technology-supporting service businesses. Purwana, Rahmi, and Aditya (2017) argue that digitalization has stimulated the emergence of technology-based service business opportunities that directly serve societal needs, particularly within the small and medium

enterprise (SME) sector. Furthermore, Budiyo (2019) reports that the majority of Indonesians access the internet via smartphones, which means that device damage can directly disrupt educational, business, and communication activities.

This study shares common ground with the research of Yoan Huke and Zega (2025) in examining smartphone use in the digital era. Both studies explore the influence of smartphone usage on aspects of education, lifestyle, and consumption patterns in society, as well as its impact on user behaviour and daily activities. The key distinction, however, lies in the focus: the prior study places greater emphasis on digitalization within SMEs, internet use for marketing purposes, and the transformation of waste into high-value products within the framework of sustainable marketing, whereas the present study specifically examines mobile phone repair services as a supporting business opportunity amid growing societal digital dependency.

Based on the social facts and literature review outlined above, research that specifically addresses mobile phone repair services as a business opportunity in the context of digital dependency across education, business, and public communication remains limited. The majority of prior studies have concentrated on digital learning, digital marketing, and online-based SMEs. Consequently, no dedicated study has yet positioned mobile phone repair services as a component of the broader digital economic ecosystem. This study therefore aims to analyze business opportunities in mobile phone repair services amidst the high level of digital dependency in Indonesian society. The novelty of this research lies in integrating the contexts of education, business, and communication as primary factors that reinforce the sustainability and prospects of mobile phone repair businesses.

Based on the social phenomena and empirical literature reviewed, the high level of societal dependence on smartphones in education, business, and communication directly implies an increase in device usage intensity. Elevated usage intensity renders smartphones more susceptible to damage, encompassing both hardware and software failures. Several studies in Indonesia demonstrate that growing digital device usage drives the expansion of technology-supporting service businesses, including the maintenance and repair of electronic devices. This indicates that mobile phone repair services present substantial and sustainable business opportunities in line with the rising trajectory of digital activity in society. This study is considered significant because mobile phone repair businesses are characterised by a high recurring demand—users require not only new devices but also maintenance and repair services to keep their devices functional over the long term. This condition gives mobile phone repair businesses a relatively stable demand structure compared to other types of ventures. Research on technology-based service businesses further suggests that business sustainability is strongly influenced by the level of societal need for technologies used in daily life. Based on the foregoing, this study formulates the hypothesis that societal digital dependency on smartphones in education, business, and communication has a positive effect on the opportunities and sustainability of mobile phone repair businesses. The higher the intensity of smartphone use within society, the greater the demand for repair services, thereby expanding business opportunities in this field.

From an Islamic economic perspective, the existence of mobile phone repair businesses is consistent with Islamic economic values, as it assists society in extending the usable lifespan of smartphones employed for education, business, and communication, thereby preventing wasteful expenditure (*israf*) and promoting economic efficiency. Furthermore, repair activities reflect environmental stewardship through the reduction of electronic waste and the decreased need for new device purchases—values that align with the Islamic principle of responsible custodianship of the earth (*khalifah*).

## 2. Literature Review

### *Digital Dependency and Smartphone Usage*

Digital dependency has increased significantly as smartphones expand their role in supporting educational, business, and communication activities. Watson et al. (2021) state that high smartphone usage intensity increases the risk of device damage, creating demand for supporting services. From a digital economy perspective, Kannan and Gambetta (2025) demonstrate that technology-based

businesses, including repair services, facilitate sustainability integration in small and medium enterprises.

Yoan Huke and Zega (2025) examined smartphone repair service transformation in the digital era, finding that societal dependency drives innovation in repair services both technically and in business models. Their study emphasizes innovative service aspects but does not specifically link digital dependency to the business opportunities of mobile phone repair from a local economic perspective—the gap this study directly addresses.

**Theoretical Framework**

The theoretical framework is anchored in digital economy concepts that position technology as a driver of new business opportunities. Digital dependency increases smartphone usage intensity and thereby generates continuous repair service demand. From an Islamic economic perspective, mobile phone repair businesses align with Islamic values by helping communities extend smartphone lifespan, thereby preventing wasteful spending (*israf*) and supporting economic efficiency. This service also demonstrates environmental stewardship by reducing electronic waste, consistent with the Islamic principle of *khalifah* (stewardship of the earth).

**3. Research Methods**

This study employs a qualitative approach with a descriptive qualitative research design (Abdussamad, 2022). The approach was chosen because the study aims to understand in depth the level of societal dependence on smartphones, factors driving the need for mobile phone repair services, and the business opportunities of mobile phone repair in the future.

The study was conducted at the HR Servis HP counter, Jl. Krakatau, Pd. Waluh, Kencong, Kab. Jember, East Java (2025–2026). The informant was selected using purposive sampling, involving one technician who is simultaneously the owner of the HR Servis HP counter, chosen based on direct experience in handling various types of smartphone damage and understanding of the development of repair needs alongside increasing digital activity.

Data collection techniques included in-depth interviews, direct observation of the counter's operational activities, and documentation. Data analysis was conducted using the Miles and Huberman model—comprising data reduction, data presentation, and conclusion drawing—supplemented by triangulation to ensure data validity (Sari et al., 2025; Firmansyah & Dede, 2022).

**4. Results and Discussion**

**Societal Dependence on Smartphones in Digital Activities**

Literature findings show that smartphones have become a basic need across all age groups in Indonesia. Based on 2025 data, smartphone usage occurs across all demographic segments, from early childhood to senior citizens, as presented in Table 1.

**Table 1. Smartphone Usage by Age Group in Indonesia (2025)**

No	Age Group	Smartphone Usage Rate	Year	Region	Source
1	Early childhood (0–6 years)	42.25%	2025	Indonesia	BPS (2025) via GoodStats
2	Youth/Productive (16–29 years)	75.95%	2025	Indonesia	Digital 2025 Global Overview Report (Rezky, 2025)
3	Adults (30–49 years)	68.34%	2025	Indonesia	BPS (2025) via GoodStats
4	Older Adults (50–79 years)	50.79%	2025	Indonesia	BPS (2025) via GoodStats

Source: BPS (2025) via GoodStats; Digital 2025 Global Overview Report (Rezky, 2025)

The data indicate that smartphone usage is cross-generational. The highest usage rate is among the productive age group (16–29 years) at 75.95%, reflecting smartphones' dominant role in education, economy, and daily communication. Even among the elderly (50–79 years), usage reaches 50.79%, demonstrating that digital dependency extends beyond productive age groups. These figures indicate that universal smartphone usage creates a persistent and stable demand for supporting services, including mobile phone repair.

In education, smartphones serve as the primary medium for online learning, academic communication, and digital material access. In business, they facilitate digital transactions, online marketing, and app-based business management. In communication, smartphones are the primary channel for information exchange through instant messaging and social media. The literature also confirms that increasing smartphone usage intensity directly elevates the risk of both hardware and software damage due to continuous use over extended periods.

**Factors Driving the Development of Mobile Phone Repair Businesses**

Eight primary factors drive mobile phone repair business development, as summarised in Table 2.

**Table 2. Driving Factors for Mobile Phone Repair Business Opportunities**

No	Factor	Description
1	Digital dependency	Smartphones have become an essential tool in education, business, communication, and digital services; device damage disrupts daily activities and drives demand for repair services.
2	High usage intensity	Continuous smartphone use increases the risk of hardware and software damage, making repair services increasingly necessary.
3	Cost efficiency	People tend to choose repair over purchasing a new device because repair costs are relatively lower.
4	Growing smartphone user base	The continuously growing number of smartphone users expands the potential market for repair businesses.
5	Digital technology development	Technological innovation causes devices to become outdated quickly and require periodic maintenance.
6	Spare parts availability	Smartphone spare parts are increasingly accessible at various price points, supporting the sustainability of repair businesses.
7	Relatively affordable startup capital	Mobile phone repair businesses can be started with relatively small capital compared to other technology ventures.
8	Demand for fast service	Society requires fast and accessible repair services to ensure digital activities are not disrupted.

Source: Compiled from literature review (2025)

The most significant factor is societal digital dependency, as smartphones have become irreplaceable tools for daily activities. High usage intensity—particularly in education, business, and communication—leads to accelerated device wear, increasing the frequency of repair needs. Economic considerations also play a key role: repair costs are substantially lower than purchasing new devices, making repair the preferred choice. Additionally, the growing availability of spare parts at various price points reduces operational barriers for repair businesses, while the relatively low startup capital requirement makes mobile phone repair accessible to UMKM entrepreneurs (Saehu & Nugraha, 2019).

**Business Opportunities from an Economic Perspective**

From an economic perspective, literature analysis shows that mobile phone repair businesses possess significant opportunities for small and medium enterprises. Several sources confirm that repair

businesses generally require relatively low initial capital, have stable market demand, and yield fast business turnover (Saehu & Nugraha, 2019). Literature also shows that dependency on smartphones creates recurring service needs. Additionally, repair businesses contribute to consumer spending efficiency by reducing the need for new device purchases and extending smartphone lifespan, thereby contributing to electronic waste reduction.

This finding supports research by Yoan Huke and Zega (2025), who confirm that increasing societal dependency on smartphones drives the transformation of repair services in the digital era. This study extends their findings by positioning mobile phone repair within the social-economic framework of digital society needs, specifically demonstrating that repair services serve as essential infrastructure supporting digital activities across educational, business, and communication sectors.

From an Islamic economic perspective, mobile phone repair businesses align with Islamic values by helping communities extend smartphone lifespan—used for education, business, and communication—thereby preventing wasteful spending (*israf*) and supporting economic efficiency. This service also demonstrates environmental stewardship by reducing electronic waste, consistent with the Islamic principle of *khalifah* (stewardship of the earth).

#### **Research Limitations and Future Research Directions**

This study has limitations that may affect the generalizability of findings. First, the literature review method does not involve direct empirical data from mobile phone repair businesses. Second, the research focus is limited to conceptual review and literature findings. These limitations can be addressed in future research by combining literature studies with field research to provide a more comprehensive analysis of business opportunities, challenges, and business models in mobile phone repair services within the context of digital dependency.

#### **5. Conclusion**

This study concludes that mobile phone repair businesses represent a significant and sustainable business opportunity in the context of Indonesia's growing digital dependency. Three key conclusions emerge:

First, societal digital dependency on smartphones in education, business, and communication creates a stable and recurring demand for mobile phone repair services.

Second, multiple factors—including high usage intensity, economic efficiency considerations, growing smartphone user base, and accessible startup capital—create favourable conditions for mobile phone repair businesses.

Third, mobile phone repair businesses contribute positively to economic efficiency by reducing the need for new device purchases, extending smartphone lifespan, and reducing electronic waste.

It is recommended that mobile phone repair entrepreneurs enhance technical competencies and adopt digital-based service innovations to remain competitive. Policy support through technical training programmes and UMKM ecosystem strengthening is also needed to increase the competitiveness of mobile phone repair businesses. Future research should incorporate empirical field data to deepen the analysis of business opportunities and operational challenges.

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