Chapter 16
Digital Era in Papua New Guinea (PNG):
Novel Strategies of the Telecom Service Provider Companies

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ABSTRACT

A revolution in wireless communication refers to a significant advancement or breakthrough in the field of wireless communication technology. This can include the introduction of new technologies, the development of faster and more efficient communication methods, and the widespread adoption of wireless communication in various industries and sectors. One example of a revolution in wireless communication is the development of 5G technology. 5G, or fifth-generation wireless technology, promises faster data speeds, lower latency, and improved network capacity compared to previous generations of wireless technology. This is expected to enable a wide range of new applications and use cases, such as the internet of things (IoT), autonomous vehicles, and virtual reality. Overall, the revolution in wireless communication has led to significant advancements in the way we live, work, and communicate, and is expected to continue to shape the future of communication. In this chapter, the authors discuss the services and the quality with basic comparison between the different telecom companies.

INTRODUCTION

Papua New Guinea is a country located in the southwestern Pacific Ocean, comprising the eastern half of the island of New Guinea and numerous smaller islands. It is the world's second-largest island country, and the largest in the Oceania region. The country has a diverse population, with over 800 indigenous languages spoken, and a mix of traditional and modern cultures. The official languages are English and TokPisin. Papua New Guinea is rich in natural resources, including minerals, timber, and oil. Its economy is heavily dependent on the export of these resources, particularly gold and copper. Agriculture is also

an important sector, with the majority of the population engaged in subsistence farming. The country has a diverse geography, ranging from tropical forests to snow-capped mountains (R Anand Kumar et al., 2022). It is home to a wide variety of plant and animal species, many of which are found nowhere else in the world. Papua New Guinea is also known for its rich cultural heritage, with traditional customs and practices still widely practiced today.

There are several telecommunications service providers companies in Papua New Guinea. Some of the major ones include:

1. Bmobile-Vodafone: This is a joint venture between Vodafone and the state-owned telecommunications company, Bmobile. They offer a range of services including mobile phone services, internet, and fixed-line services.
2. Digicel: This is a regional telecommunications company that operates in several countries in the Pacific and Caribbean regions. They offer mobile phone services, internet, and fixed-line services in Papua New Guinea.
3. Telikom PNG: This is the state-owned telecommunications company in Papua New Guinea. They offer a range of services including fixed-line services, internet, and mobile phone services.
4. Telikom PNG Wireless: This is a subsidiary of Telikom PNG that offers wireless services such as 3G and 4G internet.
5. DataCo: This is a state-owned company that manages and regulates the country's telecommunications infrastructure. They are responsible for the operation and maintenance of the national fiber-optic network and international gateways.

These providers also offer services such as data center, cloud computing, and other enterprise services. With the increasing use of internet and mobile services, the demand for telecom services is expected to grow in the future.

Telecommunication is – according to Article 1.3 of the International Telecommunication Union´s (ITU) Radio Regulations (RR) – defined as "Any transmission, emission or reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems." This definition is also identical to those contained in the Annex to the Constitution and Convention of the International Telecommunication Union (Geneva, 1992).Telecommunication is the transmission of information over a distance, typically via electronic means. It is the process of sending, receiving, and processing information using various technologies such as telephone, radio, television, and the internet. Telecommunication technologies include a wide range of devices and systems, such as telephones, cell phones, satellite systems, and fiber-optic networks. These technologies have revolutionized the way people communicate, allowing for instant and seamless communication across the globe. Telecommunication is a vital part of modern society and has a significant impact on various industries such as business, education, healthcare, and entertainment. It has enabled new forms of communication and has made it possible for people to stay connected with each other regardless of their location. Telecommunication also plays a critical role in the development of new technologies such as the Internet of Things (IoT) and 5G networks (Singh et al., 2022), which have the potential to bring about a new level of automation and connectivity to various industries (Holzinger et al., 2014).

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