



Factors influencing the Purchasing Behavior of Mobile Internet Packages

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Abstract: This study explores the factors influencing the purchasing behavior of mobile internet packages among consumers in Sri Lanka. The telecommunications industry has witnessed significant growth globally, with advancements in technology driving the adoption of mobile internet services. Through a comprehensive analysis, this research identifies the key factors shaping consumer decisions regarding mobile internet package purchases. The study utilizes data collected from 100 participants, primarily university students, representing a demographic highly engaged with online platforms. Through factor analysis, three primary factors are identified: external factors, descriptive features, and technical specifications of mobile internet packages. These factors play a crucial role in influencing consumer purchasing decisions. The findings highlight the dominance of specific mobile internet service providers, notably Dialog, and underscore the prevalence of youth engagement in mobile internet usage. The study suggests that mobile internet service providers can enhance customer satisfaction by focusing on these identified factors when designing and marketing their packages. Furthermore, gender-neutral purchasing patterns are observed, suggesting the importance for providers to tailor services to meet the needs of both male and female consumers. Additionally, the study reveals a significant preference among younger demographics for mobile internet usage, signaling an opportunity for providers to cater to the preferences of this youthful segment. Overall, this research offers valuable insights for mobile internet service providers in Sri Lanka to optimize their offerings and marketing strategies, ultimately fostering a satisfied and loyal customer base.

Keywords: Mobile internet packages, consumer behavior, telecommunications industry, factor analysis

INTRODUCTION

Since its inception, the telecommunications industry has experienced significant global expansion, driven largely by advancements in technological devices such as the telephone, radio, and computer (Henriques, 2005). In 2021 alone, the number of telephone users increased by 91 million, with an annual growth rate of 1.7 million (ITU - The International Telecommunication Union, 2021). The rise of the mobile phone industry ushered in the development of third-generation (3G) and the onset of fourth-generation (4G) technologies, which enabled cellular networks to provide internet services to consumers (Gayas, 2021). According to statistics from the International Telecommunication Union, the global internet user base grew from 28.87% in 2010 to 65.2% in 2021, with the COVID-19 pandemic in 2021 cited as a major catalyst for this accelerated growth (ITU, 2021). By 2021, the Asian continent emerged as the region with the highest percentage of global internet users, with 44.8% of its population utilizing the internet (ITU, 2021).

In Sri Lanka, internet usage began as early as 1850, with Sri Lanka Telecom Company established in 1896 as the primary provider of internet services (Rajapaksha & Dissanayaka, 2018). Over time, there has been a steady increase in internet package adoption, attributed to factors such as the financial performance of internet service providers, competition among mobile phone networks, service quality, and overall industry development (Jayasingha & Witharana, 2021). Data from the Telecommunication Regulatory Commission of Sri Lanka indicates a notable progression in internet package adoption, with less than 4% of the consumer community subscribing to such packages in the years 2005 to 2007, rising to 35% by 2020 (Telecommunication Regulatory Commission of Sri Lanka, 2021).

The study aimed to explore the factors influencing the purchasing behavior of mobile internet packages. While numerous studies worldwide have delved into consumer buying behavior, research specifically on mobile internet package purchases, particularly in Sri Lanka, remains scarce. This study fills a crucial gap by shedding light on the factors driving the buying decisions of Sri Lankan internet consumers, offering valuable insights for internet package brands to optimize their media budgeting, planning, and execution, thus avoiding potential pitfalls stemming from a lack of understanding of local consumer behavior.

Given the burgeoning competition within the telecommunications industry, mobile internet package providers in Sri Lanka stand to benefit significantly from understanding their consumers' purchasing behavior. By aligning their services with the identified influencing factors, these brands can enhance customer satisfaction and loyalty, thereby solidifying their market position. Moreover, such insights enable providers to prioritize aspects that resonate most with their target audience when marketing mobile internet packages.

It's worth noting limitations within the study, including its exclusive focus on the Sri Lankan consumer base, which may restrict the generalizability of findings to a global context. Additionally, while the study targets all public university students in Sri Lanka as mobile internet package consumers, the sample size is confined to only five public universities, limiting the broader applicability of the results. Thus, caution should be exercised in extrapolating these findings beyond the specific demographic studied.

Factors influencing the purchase of mobile internet packages

Madushanka and Wijekumara (2020) conducted a study to explore the relationship between consumers' purchase of internet packages and the influencing factors. Their findings suggest a strong positive correlation between various factors such as price, service quality, brand image, promotional activities, customer satisfaction, customer service, customer focus, efficient service delivery, and purchase behavior. Regression analysis further confirms the significant impact of these variables on buying behavior. The study concludes that selecting an internet service provider based on these factors can lead to efficient service provision and profitable investments for service providers when introducing internet packages to consumers.

Disastra and Millanyani (2013) identified several factors influencing the choice of mobile internet package service providers by consumers. These factors include price, sales promotions, tax rates, customer service, advertising, brand image, coverage, stability, speed, ease of activation, awareness, and customer base. Among these, consumers prioritize factors such as price, sales promotions, brand image, and coverage when making their decisions.

Moreover, factors influencing consumer switching behavior between internet package brands in the telecommunications industry were identified. These include new technology adoption by service providers, tariff levels, brand competition, pricing strategies, service offerings, and incentives. Brands that focus on these factors can influence consumer purchasing behavior and retain their customer base. Sharma and Arora (2014) employed a questionnaire method to collect data on factors influencing consumers' switch to a new mobile internet package service provider. Their analysis, including reliability and correlation tests, revealed that 31.4% of consumers switched brands. Five key factors affecting the choice of a new service brand were identified: price, promotional strategies, brand image, service quality, and brand name. Notably, promotional strategies emerged as the primary influencers, followed by service quality and brand reputation. Hence, the primary objective of this study was to determine the key factors that impact the purchasing decisions regarding mobile internet packages.

RESEARCH METHODOLOGY

Given the shift to a fully online educational system due to the COVID-19 pandemic, university students in Sri Lanka emerged as an ideal target population for investigating the factors influencing the purchasing behavior of mobile internet packages. Among the public universities, those with the highest student enrollment, namely the University of Sri Jayawardenepura, the University of Kelaniya, the University of Peradeniya, the University of Jaffna, and the University of Colombo were selected for this study based on statistical data provided by the University Grants Commission in 2020. Utilizing a stratified random sampling method, 100 sample units were chosen from these universities.

To gather pertinent data, a questionnaire was deemed the most suitable data collection method. Factor analysis served as the chosen analytical approach to fulfill the study's objective. This methodology allowed for a comprehensive examination of the identified factors influencing the purchasing behavior of mobile internet packages among Sri Lankan university students.

The methodology section outlines the plan and method that how the study is conducted. This includes the Universe of the study, the sample of the study, Data and Sources of Data, the study's variables and the analytical framework. The details are as follows.

RESULTS AND DISCUSSION

Descriptive analysis

The analysis of data collected from 100 participants sheds light on the demographics and brand preferences of mobile internet package users. As appeared in figure 1, in terms of gender distribution, females constitute 48% of the sample, while males represent 52%.

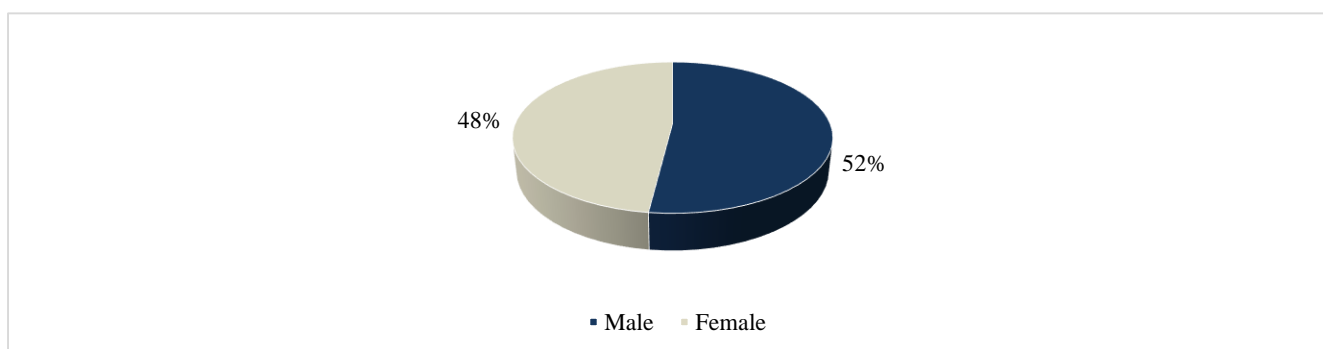
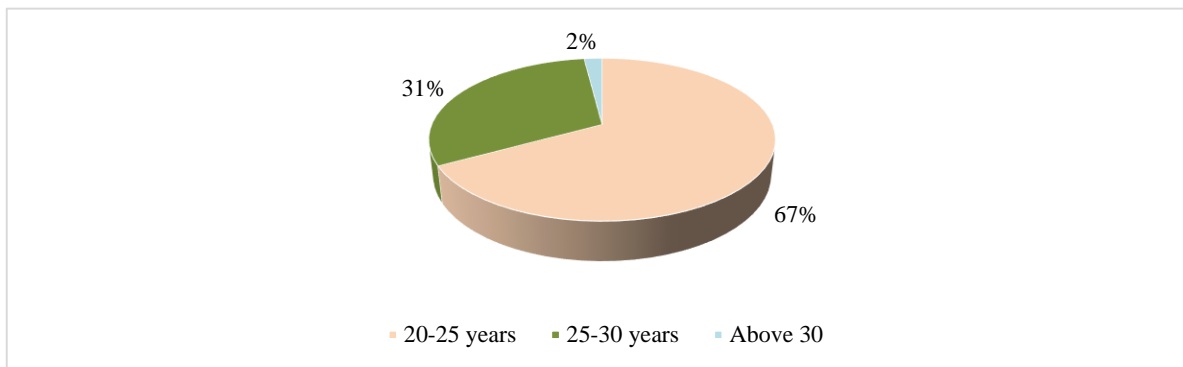


Figure 1: Gender
Source: Survey data, 2023

Regarding age demographics (figure 2), the majority of mobile internet package users fall within the 20-25 age bracket, accounting for 67% of the sample. The 25-30 age group comprises 31% of users, with only a minimal 2% represented by individuals over the age of 30, indicating a predominant usage among the youth demographic.



Figure

2: Age

distribution
Source: Survey data, 2023

In terms of brand preferences, Dialog emerges as the most popular choice, with 42% of users opting for this service provider. Following closely behind is Mobitel, which captures 40% of the market share. Other brands such as Airtel, Hutch, and Etisalat collectively make up the remaining 18% of users, with each brand holding a minimal share. These findings are shown in figure 3.

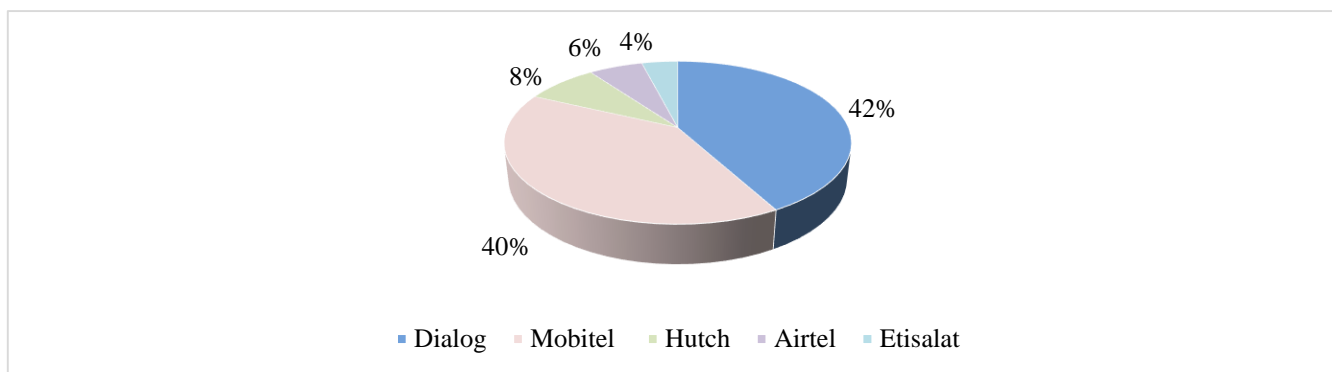


Figure 3: Brand preference
Source: Survey data, 2023

Analysis of factors affecting purchase behavior of mobile internet packages

Factor analysis serves the purpose of reducing a multidimensional dataset into a smaller set of independent components. In line with the study's objectives, factor analysis is employed to identify the key factors influencing the purchase behavior of mobile internet packages. To assess the reliability of the questionnaire data, Cronbach's Alpha test is utilized, with a result of 0.896 indicating high consistency and reliability, ensuring consistent outcomes under similar circumstances. The Kaiser-Meyer-Olkin (KMO) statistic is employed to evaluate the adequacy of the sample size for factor analysis. With a mean value of 0.87, exceeding the threshold of 0.6, it suggests a sufficient sample size for the study's purposes.

In conducting factor analysis, the extraction of the first three principal components is determined based on eigenvalues exceeding 1, explaining 59% of the variance across the 15 variables considered. The eigenvalues for these components are 6.268, 1.626, and 1.012 respectively, indicating a dominant three-dimensional component structure. The Scree Plot chart confirms the relevance of three dominant components for the study.

The factor analysis conducted through Principal Component Analysis and Principal Axis Factoring, employing Varimax and Equamax Rotation methods, yielded consistent results. However, differing outcomes were observed under the Quatimax Rotation method. Despite this discrepancy, the overall success of the factor analysis is evident, as similar results were obtained in four out of the six methods.

The Varimax Rotation method, employed within the Principal Component Analysis framework, facilitated a straightforward interpretation of factor distribution. Consequently, factors pertinent to the study's objectives were identified based on the factor analysis conducted using the Varimax Rotation method.

Table 1: Varimax Rotation

Attributes	Component		
	1	2	3
Individual income level	.729	.307	.188
Generation technology of mobile internet package	.147	.640	-.013
Tax amount of mobile internet package	.758	.341	.031
Offers provided by mobile internet package	.750	-.013	.168
Data plan period of mobile internet package	.580	.611	.117
Conditions imposed by the mobile internet package	.745	.429	.075
Data amount of mobile internet package	.119	.631	.189
Price of mobile internet package	.162	.724	.051
Download speed of mobile internet package	.765	-.006	.289

Upload speed of mobile internet package	.189	.312	.754
Number of validity days of mobile internet package	.138	.542	.207
International coverage capacity of mobile internet package	.366	.081	.755
Type of mobile internet package	.202	.589	.148
Other customer comments on the mobile internet package	.547	.417	.348
Signal strength and coverage of the mobile internet package in the area	.009	.630	.474

Source: Survey Data, 2023

According to the analysis of the data conducted under the varimax method in the principal component analysis, three factors can be identified that affect the purchase of mobile internet packages. That is the external factors of the mobile internet package, the descriptive factors of the mobile internet package, and the technical factors of the mobile internet package.

Table 2: Divided factors

Levels	Factors	Variables	Value
F1	External factors about mobile Internet package	Individual income level	0.729
		Tax amount of mobile internet package	0.758
		Offers provided by mobile internet package	0.750
		Conditions imposed by the mobile internet package	0.745
		Download speed of mobile internet package	0.765
		Other customer comments on the mobile internet package	0.547
F2	Descriptive factors of mobile Internet package	Generation technology of mobile internet package	0.640
		Data plan period of mobile internet package	0.611
		Data amount of mobile internet package	0.631
		Price of mobile internet package	0.724
		Number of validity days of mobile internet package	0.542
		Type of mobile internet package	0.589
F3	Technical factors of mobile Internet package	Signal strength and coverage of the mobile internet package in the area	0.630
		Upload speed of mobile internet package	0.754
		International coverage capacity of mobile internet package	0.755

Source: Survey data, 2023

CONCLUSION AND SUGGESTIONS

Conclusion

Although five companies are providing mobile internet package facilities in Sri Lanka, it can be recognized that Dialog has been able to attract customers since its inception. In Sri Lanka too, according to 2021 data reports, Dialog Company has been named as the brand with the highest number of users at 39. According to the survey data, it was revealed that a high percentage of 42 are using the Dialog brand. When looking at the detailed statistical information study, the mobile internet package customer community represented a high percentage of 98.2% age group between 20-30 years old, while the representation of the age group above 30 was at a minimum level of 1.2%. Accordingly, it can be concluded that mobile internet purchases among the youth community are high.

It can also be concluded that external factors about the mobile Internet package, descriptive factors of the mobile internet package and technical factors of the mobile internet package affect the purchasing of mobile internet packages by the consumer community.

Suggestions

In the factor analysis conducted for this study, three key factors were identified as influencing the consumer community's decision to purchase mobile internet packages. These factors encompass external aspects of the package, descriptive features, and technical specifications. Brands can enhance customer satisfaction by focusing on these factors when offering their services, thereby cultivating a contented customer base.

Descriptive statistical analysis revealed that purchasing patterns for mobile internet packages are similar among both male and female consumers. Consequently, mobile internet service providers could foster a robust customer community by tailoring their services to meet the needs of both gender segments. Furthermore, the study's sample data indicated a predominance of mobile internet consumers below the age of 30. Consequently, mobile internet package brands would benefit from offering services that cater to the preferences and requirements of this youthful demographic.

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