



## Market share analysis and market segmentation of android-based mobile phone products in sibolga city

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### ABSTRACT

This study aims to find out how big the smartphone market share is and see which type of smartphone dominates the market and becomes the Top Leader, as well as see the most promising market segmentation, the research method is used by market estimate analysis and the distribution of questionnaires to 50 respondents, from the results of the research it was found that Oppo SmartPhone has occupied the top position of the smartphone market with an annual sales achievement of 8,395 data taken from Mobile phone counters in the Sibolga City area, North Sumatra Province.

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## 1. INTRODUCTION

Developments in the field of technology and information are developing rapidly and rapidly. This requires humans to participate in using information technology as one of the efforts to keep up with the times According to (Danuri et al., n.d.) the development of technology in life, starting from a simple process in daily life to the level of fulfillment of satisfaction as an individual and social being. From time to time, technological advancement continues to develop, starting from the era of agricultural technology, the era of industrial technology, the era of information technology, and the era of communication and information technology. This development has brought various impacts in the life of the community, nation and state, every individual is interested in using and utilizing each of these developments. Every innovation is created to provide positive benefits to human life. Technology also provides many conveniences, as well as a new way of carrying out human activities. Humans have also enjoyed many benefits brought by technological innovations that have been produced in the last decade. One form of information technology development is mobile phones, smartphones or smart phones. Smartphones provide convenience for users in work, learning and entertainment activities. According to (Assauri, 2004) Definition of Market Orientation Market orientation is the view of company leaders that emphasizes the need for companies to coordinate marketing activities that are directed to be able to achieve the goals and

objectives of providing customer satisfaction by providing services that are in accordance with the company's goals so that the company's goals will be achieved to gain profits in the long term.

According to (Prof. Rhenal Kasali, 2012) the factors that drive the implementation of a business, namely the total entrepreneurial mental readiness, the presence of a manager as the executor of activities, and the existence of a far-reaching vision to achieve success. Segmentation studies are intended to identify the needs and preferences of certain consumer groups, according to (Mahendra Siregar et al., n.d.) . These details can be used to develop products or services that will meet the needs and preferences. In addition, segmentation studies are conducted to determine which media is best to target a specific group with promotional messages. Each consumer group often has certain preferences in terms of communication media. According to (Magister et al., 2018) Porter as quoted by James and Kalu (2015), the purpose of a company's positioning strategy is to create competitive advantage or maintain the advantage that has been achieved in business competition. This strategy is carried out by providing high-quality products, providing superior customer service, achieving lower costs than competitors, having a more convenient geographical location, producing products with better performance than competing brands, making products more resilient and durable, and providing more value to buyers for the money they have spent (a combination of high quality, good service, and acceptable price).

(Handayani, 2014)The smartphone era is divided into three main phases. The first phase is for the benefit of the company. This era began with the presence of the first smartphone by International Business Machines (IBM) in 1993. Blackberries are considered the revolutionary device of this era, which introduced many features including email, internet, fax, web browsing and camera. The second phase of the smartphone era began with the emergence of Apple's iPhones for general consumer targets in 2007. At the end of 2007, (15Lamb, n.d.)Google launched the Android operating system with the intention of approaching the smartphone consumer market. dengan fitur yang dibutuhkan general consumers and at the same time keep costs low to attract more customers. The third phase of the smartphone era is reducing the gap between the enterprise-centric and the general consumer-centric. This phase is accompanied by improved display quality, screen technology and also aims to stabilize the mobile operating system, introduce a stronger battery and improve the use of the interface and many other features that make this device smarter.

Because according to (Berliando & Kusumawardhani, 2022)OPPO originating from China has a poor perception as evidenced by its low market share (ranked fourth) resulting in tight and very competitive market conditions for OPPO to compete in the market (Kotler, 2015)Android is one of the popular mobile operating systems created by the Google company. The definition of the Android Operating System itself is briefly a linux-based operating system intended for mobile phones (Smartphones).(Binarso, 2014). The advantage of the Android operating system itself is that it provides an open source platform for developers to create their own millions of applications which will later be used for various mobile devices for now the Android operating system with the latest version is Version 6.0 Lolly Pop. Since its presence in Indonesia in 2013, Oppo has intensively penetrated smartphone sales, by utilizing and maximizing all potential promotional media. (Pratama, 2015)The number of android-based mobile phone products circulating on the market and the incessant production of manufacturers in carrying out various kinds of marketing activities make consumers have many choices in using android-based mobile phone products, so that the possibility of moving from one product to another is even greater.

Of course, this situation needs to be observed by producers so that the market share they have controlled can continue to be maintained and improved, both for development and the emergence of new products. One of the ways is to conduct intensive

marketing both through electronic information media and reading media or with other media. According to (170583-ID-Posisioning-Dan-Segmentasi-Handphone-Den, n.d.) Consumer perception of mobile phones will determine how the position of each mobile phone among its competitors will also determine who the closest competitors of each mobile phone brand are based on the similarity of the attributes they have. *Brand awareness* can be interpreted as consumer awareness of the existence of a brand name in their mind when consumers think of a product category and is the name that they remember the most for that product category (*recall*). The results of the study suggest (Rao Ratih & Yeltas Putra, n.d.) that *brand awareness* influences purchasing decisions in consumers.

(Mullins, 2013) A product will be successful if it has attributes that are in accordance with what consumers expect. A product offered to consumers by the company will survive in the market if the attributes of the product are accepted, the attributes of the product given to consumers aim to attract buyers and if these attributes are accepted, consumers are expected to be satisfied with the product which ultimately leads consumers to become loyal to the product. With the attributes attached to a product, customers can assess and measure the suitability of product characteristics with their needs and desires. For companies, by knowing what attributes can affect the purchase decision process, strategies can be determined to develop and improve products to better satisfy customers.

According to (Suliyanto, 2010) (GSMA Report, the number of smartphone users globally continues to increase year after year. In 2019, there were at least 3.2 billion users, up 5.6% from the previous year. Meanwhile, the number of active devices used reached 3.8 billion units. China is the country with the largest number of *smartphone* users. This country of Pandas controls 27% of the world's total *smartphone* users. However, of the many smartphone brands/brands circulating on the market, the majority are brands from abroad. Against this background, the author tries to analyze how strong the dominance of the Oppo Smartphone market in the city of Sibolga is

Conducting Market Studies (Limakrisna, 2007) Market studies involve scientific principles to test demand in controlled scenarios. Although time-consuming, these studies provide strong insights into demand estimation. This approach is especially useful for businesses looking for a more objective and less subjective approach.

(Mullins, 2013) Management Marketing is considered an art and science to attract, retain and increase customers by selecting the target market and creating superior customer value. In addition, according to marketing management is the activity of analyzing, planning and implementing various programs designed for the formation, maintenance and development, According to (Kotler, 2000) the product, it will be successful if it has attributes that are in accordance with what is expected by consumers. A product offered to consumers by a company will survive in the market if the attributes of the product are accepted, the attributes of the product given to consumers aim to attract buyers and if these attributes are accepted, consumers are expected to be satisfied with the product which ultimately leads consumers to become loyal to the product.

## 2. RESEARCH METHOD

### 2.1 Population and Sample

According to (Sugiyono., 2008) Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics that are determined by the researcher to be studied and then drawn conclusions. The research population is the whole of the research object to be researched, the number and characteristics possessed by the population. The population in this study is 200 people consisting of Smartphone users and 5 Mobile Phone Counters in the Sibolga City area, North Sumatra Province The

sampling method used in this study is non-probability, namely convenience sampling. According to, sampling with convenience sampling is sampling that is carried out by selecting samples independently at the discretion of the researcher. The selection of the convenience sampling method is taken based on the availability of elements and the ease of obtaining them, in other words the sample is taken because the sample is in the right place and time. According to (M.M.D & MOTE, 2018) this study, it is an explanatory survey research using interview techniques with respondents and analysis of interview results in the form of descriptive.

## 2.2 Data Collection Methods

According to (Sugiyono, 2021) Primary data was obtained directly from respondents and informants consisting of Smartphone Users in the study area. In collecting data with respondents, the questionnaire has been determined and adjusted to the needs of the researcher. Secondary data was obtained from Mobile Phone Counter entrepreneurs around Sibolga City, North Sumatra Province. According to (Arikunto, 2006) the method used by the researcher in determining the data he needs. Secondary Data, According to (HabiburRahman, n.d.) Secondary data, is data obtained indirectly or through other parties. Generally, secondary data is obtained through official releases or publications, including data that is used as literature such as books and reports.

## 2.3 Data Analyst Techniques

Data analysis is a stage carried out to trace the data that has been obtained in the data collection process. Accuracy in data analysis is essential to obtain acceptable conclusions. According to (Heryana, 2020) data analysis is the process of systematically searching for and compiling data obtained from the results of interviews, field notes, and documentation, by organizing data into categories, describing them into units, synthesizing, organizing them into patterns, choosing which ones are important and what will be studied, and making conclusions so that they are easy to understand by yourself and others.

Uji Validitas; According to Sugiyono 2018:125 in (Veronika Hutabarat et al., 2023) , the validity test used shows the degree of accuracy between the data that occurs in the object and the data collected by the researcher. This validity test is carried out to measure whether the data obtained after the study is valid data or not, using the measuring instrument used (questionnaire). The significance test is carried out by comparing  $r$  count with  $r$  critical and if  $r$  count  $>$   $r$  critical, then the indicator is declared valid, this validity test is assisted by the SPSS vs 20 program.

If a measuring device is used twice to measure the same symptoms and the measurement results obtained are relatively consistent, then the tool is reliable. According to (Yenni Sofiana Tambunan et al., 2023) reliability is "an index that shows how far a measuring device can be trusted or reliable. Measuring reliability by means of Consistency Reliability, which contains the extent to which the instrument items are homogeneous and reflect the same construct as the underlying one. A construct or variable is said to be reliable if it gives a Cronbach Alpha value  $>$  0.8 very good reliability, high / convincing. 0.7 0.8 good reliability and Cronbach Alpha

Table:1 Respondent Statement Score

Statement	Value
Strongly Agree	5
Agree	4
Disagree	3
Disagree	2
Strongly disagree	1

### 3. RESULTS AND DISCUSSIONS

Market opportunities were analyzed using a questionnaire filled out by 50 respondents (samples) residing in Sibolga-Pandan City (Central Tapanuli). The results of the questionnaire are as follows:

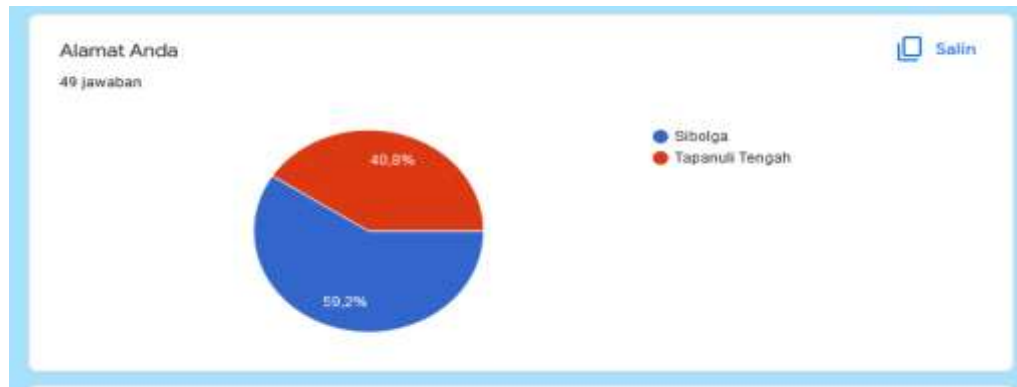


Figure: 1. Questionnaire Diagram

As many as 59,2% of respondents admitted that they were interested in buying Oppo products and 40,8% of respondents admitted that they were not interested. It can be seen that from the results of the questionnaire of respondents as many as 59.2% chose Oppo Smartphone as the smart Telegram product that they will use, judging from the above fact that Oppo's market dominance is indeed very strong and it is clearly seen that it occupies the main position as a competitor in the world of smartphone technology.

Table:2 Mobile Sales Volume

No	Competitors	Sales Volume				
		Samsung	Xiaomi	Oppo	Vivo	Realme
1	Naoli Ccelluler	730	365	730	-	365
2	Dragon Accessories	1.095	1.825	1.460	1.825	1.095
3	Mas Celluler	1.095	730	1.460	1.095	365
4	Popular Celluler	-	1.460	2.920	1.825	-
5	Zamili Celluler	365	730	730	730	365
6	Mitra Celluler	1.095	1.460	1.095	1.095	730
	Average	4.380	6.570	8.395	6.570	2.920

The table above explains that the average sales volume for 5 smartphone brands is still controlled by Oppo smartphones with an average sales of 8,395 units per month. Followed by Xiaomi and Vivo sales which look balanced and Samsung as low as 4,380 units per month which realme occupies the bottom position with 2,920 units sold every month.

Table:3 Average Sales Growth

No	Competitor Name	Growth, Sales/ T (%)
1	Naoli Cellular	10
2	Dragon Accessories	8
3	Mas Cellular	7
4	Popular Cellular	10
5	Zamili Cellular	12
6	Mitra Cellular	13
	Average	10 %

From the data above, it is explained that the average sales growth is 10%. So it can be seen that the life cycle of the company in charge of smartphone sales is very good and significant development year.

Tabel 4. Number of Cases in each Cluster

Cluster	People	Rate
Product	15	30%
Quality	10	20%
Superiority	25	50%

From the data above, it can be seen that the market segmentation for the product cluster is 15 people or equal to 30%, for the Quality cluster as many as 10 people or 20% and the excellence cluster is as many as 25 people or 50%. Based on the results of the analysis, it can be stated that respondents see more the quality of their support in determining the purchase of android-based mobile phone products.

Table:5 SWOT Analysis Results

	<b>Internal</b>	<b>Power (S)</b> <ol style="list-style-type: none"> <li>1. Oppo is famous for its innovations in developing the latest technologies in the smartphone industry, such as advanced cameras and fast charging.</li> <li>2. Attractive Design: Oppo is known for having attractive and elegant smartphone designs, with high-quality materials.</li> <li>3. Product Quality: Oppo has a good reputation for product quality, with reliable and durable performance.</li> <li>4. Extensive Distribution Network: Oppo has a strong distribution network around the world, allowing it to reach customers in various markets.</li> <li>5. Brand Awareness: Oppo has high brand awareness, especially in Asia, which helps in expanding market share and increasing sales</li> </ol>	<b>Weakness (W)</b> <ol style="list-style-type: none"> <li>1. Lack of Innovation Sustainability: Oppo can become less sustainable in innovation, which can lead to a loss of competitiveness against its competitors who are constantly presenting new features.</li> <li>2. Limited Market Penetration in the West: Although Oppo has succeeded in the Asian market, it still faces challenges in entering the market in the West, which is dominated by other smartphone brands</li> <li>3. Limited Number of Sales of Other Brands: Oppo still loses in product sales when compared to big brands such as Apple and Samsung</li> <li>4. Lack of App Development Support: Oppo may face obstacles in app development support, which can limit the use of their smartphones in terms of available apps</li> </ol>
	<b>Eksternal</b>	<b>Opportunity (O)</b> <ol style="list-style-type: none"> <li>1. Smartphone Market Growth: Demand for smartphones continues to increase, especially in developing countries, providing growth opportunities for Oppo.</li> <li>2. Increased Online Presence: Online sales are constantly increasing, giving Oppo the</li> </ol>	<b>Threat (T)</b> <ol style="list-style-type: none"> <li>1. Fierce Competition: Oppo faces stiff competition from other smartphone brands such as Apple, Samsung, and Huawei)</li> <li>2. Rapid Technological Development: Rapid technological developments can make Oppo products obsolete if they are not able to keep up with them</li> </ol>

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<p>opportunity to expand their market share through e-commerce platforms.</p> <p>3. 5G Technology Development: The development of 5G technology opens up new opportunities for Oppo to present smartphones that support this technology, and become one of the main players in the 5G market</p> <p>4. Camera Technology Innovation: The demand for high-quality smartphone cameras is constantly increasing, and Oppo can take advantage of this opportunity to bring better innovations in their camera technology.</p>	<p>continuously</p> <p>3. Global Economic Crisis: The global economic crisis can affect smartphone sales and demand broadly, including for Oppo.</p>
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#### 4. CONCLUSION

As many as 59,2% of respondents admitted that they were interested in buying Oppo products and 40,8% of respondents admitted that they were not interested. It can be seen that from the results of the questionnaire of respondents as many as 59.2% chose Oppo Smartphone as the smart Telegram product that they will use, judging from the above fact that Oppo's market dominance is indeed very strong and it is clearly seen that it occupies the main position as a competitor in the world of smartphone technology.

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The market segmentation for the product cluster is 15 people or equal to 30%, for the Quality cluster as many as 10 people or 20% and the excellence cluster is as many as 25 people or 50%. Based on the results of the analysis, it can be stated that respondents see more the quality of their support in determining the purchase of android-based mobile phone products.

Based on the SWOT analysis, it can be concluded that Oppo smartphones have their own advantages, namely Oppo is famous for its innovations in developing the latest technologies in the smartphone industry, such as advanced cameras and fast charging. Attractive Design: Oppo is known for having attractive and elegant smartphone designs, with high-quality materials. Product Quality: Oppo has a good reputation for product quality, with reliable and durable performance. Extensive Distribution Network: Oppo has a strong distribution network around the world, allowing it to reach customers in various markets. Brand Awareness: Oppo has high brand awareness, especially in Asia, which helps in expanding market share and increasing sales.

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