Analysis of Market Segmentation and Targeting on Market Growth Mediated by Marketing Ability on Android Products in Banten

Asep Supriadi
Universitas Sultan Ageng Tirtayasa

ABSTRACT
This research delves into the Android product market in Banten, aiming to analyze the interplay between market segmentation, targeting strategies, marketing ability, and market growth. A sample of 287 participants provided insights into demographic characteristics, technology adoption patterns, and income levels. Employing Structural Equation Modeling with Partial Least Squares (PLS-4), the study revealed significant direct effects of market segmentation and targeting strategies on market growth. Marketing ability emerged as a crucial mediator, indicating its pivotal role in translating segmentation and targeting efforts into tangible market outcomes. The model demonstrated a strong fit, supported by high goodness-of-fit and normed fit indices. R² and Q² metrics underscored the model's explanatory power and predictive relevance for market growth. The findings offer actionable insights for businesses, emphasizing the importance of tailored strategies and the enhancement of marketing capabilities for sustained market growth.

Keywords:
Android Products
Banten
Market Growth
Market Segmentation
Marketing Ability
Targeting

This is an open access article under the CC BY-SA license.

Corresponding Author:
Name: Asep Supriandi
Institution: Universitas Sultan Ageng Tirtayasa
e-mail: asep.research@untirta.ac.id

1. INTRODUCTION
The dynamic Android product market scenario in Indonesia's Banten region offers an intriguing blend of consumer demand, market competitiveness, and technology innovation. Globally, the Android ecosystem has grown at an exponential rate. Indonesia's industrial company is expanding quickly, and a variety of businesses are vying for customers' favor by raising the caliber of their products [1]. Indonesian company is growing quickly, particularly in the food and beverage industry because to the Micro, Small, and Medium Enterprises (MSME) empowerment program [2]. In Indonesia, MSMEs in the fashion industry—especially those in the streetwear sector—have grown significantly [3]. Due to the intense rivalry in the online business market brought about by Indonesia's growing number of online firms, businesses are employing cutting-edge digital media marketing techniques to raise their brands' exposure [4].

The dynamic Android product market landscape in Indonesia's Banten region offers a stimulating blend of consumer demand, market competitiveness, and technology innovation. Globally, the Android ecosystem has grown at an exponential rate, posing both opportunities and difficulties for companies trying to make a name for themselves in this developing industry. Indonesia's fashion industry, especially the creative industry subsector, has grown...
lucrative and made a substantial GDP contribution [4]. In Indonesia, MSMEs (micro, small, and medium-sized firms) now primarily rely on the marketplace to boost their revenue [5]. Indonesia’s e-commerce industry has been growing as a result of the country’s rapid population expansion and advancements in digital technologies [6]. Numerous industries, including the heavy equipment sector, have conducted studies on how consumers make decisions about what to buy based on factors including pricing, product quality, and brand image [7]. Businesses in Banten province can benefit from these insights from various industries regarding development potential and the significance of elements like innovation, customer experience, and market competitiveness in building a strong presence in the Android product market.

In Banten’s growing Android market, market segmentation and targeting methods are critical in determining the success of marketing campaigns and impacting overall market growth. For firms hoping to navigate and benefit from this climate, knowing what propels and inhibits market growth is crucial. A thorough framework for examining the operations of multi-sided companies, such as Google’s Android platform, which cater to several client groups with interdependent wants, is provided by the economics of two-sided markets [8]. Furthermore, the analysis of the Android Market’s sales distribution points to a "Superstar" market with popular hit products dominating it rather than a "Long Tail" market with niche products making up a significant portion of sales [9]. [10]. Additionally, the price factor significantly influences mobile phone purchase decisions, highlighting the role that pricing tactics have in influencing customer behavior [11]. In order to understand the complex linkages between market segmentation, targeting strategies, marketability, and market growth in the Banten Android products sector, this research will undertake a quantitative exploration.

2. LITERATURE REVIEW (11 PT)

3.1. Market Segmentation

For organizations to effectively navigate the varied consumer landscape and meet the particular needs of particular customer groups, market segmentation is a crucial technique. Businesses may better target their marketing efforts and offer a more individualized experience by recognizing and comprehending various consumer segments based on behavior, psychographics, and location. Increased market share and customer satisfaction are two benefits of effective market segmentation [12]–[16]. Businesses can get a strategic edge in creating focused marketing campaigns by having a thorough awareness of the subtle preferences of various consumer categories in Banten’s Android product market.

3.2. Targeting Strategy

Businesses need to use efficient targeting tactics to allocate resources more effectively and boost their market competitiveness once market groups have been defined. Differentiated targeting focuses marketing efforts on certain market groups, while undifferentiated targeting treats the entire market as a single entity. Targeting that is concentrated concentrates on niche market segments. The choice of targeting approach is influenced by a number of elements, including competition, market dynamics, and organizational resources, according to prior study [17]. The swift advancement of e-commerce and associated information technology has allowed businesses to gather and examine personal consumer data for the purpose of targeted advertising [18]. Techniques
for location-based mobile targeting have also surfaced as a tactic to draw in and keep consumers [19]. Furthermore, it has been suggested that entity graph learning systems be used to address the cold-start issue and offer explainable user targeting capabilities [20], [21]. The market's heterogeneous consumer base can be reached and engaged with in a variety of ways thanks to these unique targeting tactics and technology.

3.3. Marketing Capability
An organization’s capacity to design, carry out, and assess marketing strategies—such as brand management, successful advertising, and customer relationship management—is referred to as its marketing capability. Elevated marketing proficiency has been associated with a rise in market share, patronage, and general company prosperity. Organizations can adjust to shifting market conditions thanks to the dynamic nature of marketing capabilities [22], [23]. Strong marketing skills help enterprises in Banten’s Android product market navigate the competitive environment more skillfully, which in turn influences market growth.

3.4. Market Growth
Technological breakthroughs, smart marketing techniques, and rising customer demand all have an impact on the Android product sector's growth. Businesses aiming for long-term success and market leadership must comprehend these elements. Research by [24] investigates the relationship between marketing initiatives and market expansion, putting forth the theory that knowledge production, matching, and diffusion mediate the impact of endogenous efforts on market expansion. The industrial life cycle, which takes into account an industry’s sustainability over time and comprises stages like pioneer, growth, mature, and decline, is also covered in [2]. Greater update dissimilarity and market orientation are related with higher performance, according to a study by [25] that examines the effects of several mobile app development activities on market performance. In general, it is stressed that two key factors influencing market growth are strategic planning and market responsiveness [26]. Understanding particular growth drivers in the context of Banten’s Android product market can help companies develop focused strategies to take advantage of new opportunities.

3.5. The Mediating Role of Marketability
The relationship between market growth and targeting and segmentation techniques has been the subject of much research. Regarding marketability's mediating function in this relationship, there is a clear gap in the literature. Marketability serves as a channel by which targeting and segmentation strategies are translated into observable outcomes in terms of market expansion [27]. In order to be competitive in a constantly changing market, businesses must constantly enhance their marketing capabilities [28]. Organizations can greatly increase their resilience by implementing marketing strategies that take into account the "what," "who," and "how" dichotomies and effectively use social media to encourage the adoption and dissemination of goods and services [29]. Furthermore, developing successful marketing strategies requires an awareness of the needs, tastes, and
behaviors of the target audience [30]. Businesses that focus on novelty while maintaining a realistic, market-oriented perspective in their product planning and promotion are better positioned to survive in the highly competitive business world [31]. Businesses in Banten’s Android product market can improve their marketing strategy by gaining knowledge into how marketability influences the relationship between segmentation, targeting, and growth.

3.6. Conceptual Hypothesis

It is evident from a summary of the literature that market segmentation, targeting tactics, and marketability interact to shape the Banten Android product market. Marketability shows up as a key mediating factor in this relationship, even if market segmentation and targeting have a direct impact on market growth. This study presents four hypotheses based on the literature wherein the performance of enterprises operating in this dynamic market is believed to be determined by the synergy of these aspects.

In the context of Android products in Banten, the following hypotheses have been developed based on the literature research about the analysis of market segmentation, targeting, and their impact on market growth mediated by marketing capabilities:

H1: Market Segmentation has a significant direct effect on Market Growth.

H2: Targeting Strategy has a significant direct influence on Market Growth.

H3: Market Segmentation has a significant indirect effect on Market Growth mediated by Marketing Capability.

H4: Targeting Strategy has a significant indirect effect on Market Growth mediated by Marketing Capability.

3. METHODS

In order to methodically examine the relationship between market segmentation, targeting strategies, marketability, and market growth in the Banten Android product market, this study used a quantitative research strategy. The method utilized is cross-sectional, which gives an overview of the dynamics of the market at the moment and permits data collection at a particular point in time. The study population consisted of Android product users in the Banten region. Using purposive sampling and a random sampling technique, a representative sample size was chosen with the criterion that consumers use Android phones for mobility. The author collected 287 data during the two-month survey process, which began on August 3 and finished on October 8, 2023. The author believes that the 287 data obtained are consistent with research using SEM-PLS. Hair 2019 recommends multiplying the number of research indicators by five to ten; since this research has eight indicators, the author multiplies by ten, resulting in a minimum sample size of 80. The author believes that the 287 data are consistent with the research based on Hair’s 2019 advice.

3.1. Data Collection

A structured survey was utilized to gather primary data from the designated sample. The purpose of the survey questionnaire was to gather data on purchase patterns, marketing efforts perceptions, product awareness, and demographics. Responses were measured on a Likert scale from 1 to 5, which gave the analysis a quantitative foundation.

3.2. Variables

Market Segmentation (MRS): as determined by two indicators Segment accessibility measures how simple it is to access and target predefined market segments, whereas segment clarity
evaluates how well defined and distinct market segments are.

Targeting Strategies (TGS): as determined by two indicators Precision of Targeting measures how precisely targeting methods reach and influence market segments, whereas Relevance of Targeting evaluates how relevant targeting tactics are to market segment features.

Marketing Ability (MRA): features two indicators advertising effectiveness, which evaluates the success of executed advertising campaigns, and brand management competency, which evaluates the capacity to manage and develop brand image.

Market Growth (MRG): determined by two indicators Market Share Expansion, which measures the degree to which Android products have expanded their market share, and income Growth Rate (RGR), which evaluates the growth rate of income from sales of Android goods.

3.3. Data Analysis

In this work, partial least squares (PLS-4) and structural equation modeling (SEM) are used for data analysis. PLS-4 is used because it can handle non-normal data and is appropriate for small sample sizes. To guarantee data correctness and consistency, the validity and reliability of the survey instruments will be evaluated using the proper statistical techniques. SEM-PLS is used to investigate how market segmentation and targeting techniques affect market growth both directly and indirectly, as well as how marketing ability functions as a mediating factor. Fit indices, such as the fit index (GoF) and the normalized fit index (NFI), will be used to assess the overall fit of the suggested model. To evaluate the statistical significance of direct and indirect influences in the models, bootstrapping techniques will be applied [32].

4. RESULTS AND DISCUSSION

4.1 Demographic Sample

A sample of 287 participants, who represented the Android product market in Banten, provided replies to the poll. The sample’s demographic profile offers important information about the traits of the intended audience. The respondents’ age distribution reveals a broad representation throughout age groups: 32% of respondents are 18–24 years old, 41% are 25–34 years old, 18% are 35–44 years old, and 9% are 45 years and above. The age group of 18 to 34 accounted for the majority of participants, indicating a younger demographic that is typically more tech-savvy and receptive to embracing new technology.

The respondents’ income distribution demonstrates the range of economic conditions in the sample: 15% of income is low, 52% is medium, and 33% is high. This distribution sheds information on market dynamics and purchasing power by enabling a thorough knowledge of how various income groups interact with Android devices. Based on how they adopted technology, participants were divided into three groups: early adopters (27%), regular adopters (58%), and late adopters (15%). Determining whether the market is ready for new Android features and products requires an understanding of how technology adoption patterns are distributed.

The demographic profile reveals that young person (18–34 years old) with intermediate incomes are overwhelmingly represented. This economically varied and tech-savvy group makes up a sizable share of Banten's Android product market. Additionally, the vast majority of them are frequent users of technology, suggesting a steady demand for new Android features and goods.

4.2 Validity and Reliability

The metrics of the load factor, cronbach’s alpha, and composite reliability—which show a high degree of internal consistency for the variables under examination if their values are above 0.70 and AVE (>0.70)—were used to confirm the
reliability of the survey instrument. Convergent and discriminant validity, among other validity checks, confirmed the data’s robustness concurrently, adhering to the recommendation of [32].

Table 1. Validity and Reliability Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>LF</th>
<th>CA</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Segmentation</td>
<td>MRS.1</td>
<td>0.792</td>
<td>0.875</td>
<td>0.915</td>
<td>0.643</td>
</tr>
<tr>
<td></td>
<td>MRS.2</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRS.3</td>
<td>0.875</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRS.4</td>
<td>0.772</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Targeting Strategies</td>
<td>TGS.1</td>
<td>0.840</td>
<td>0.866</td>
<td>0.929</td>
<td>0.684</td>
</tr>
<tr>
<td></td>
<td>TGS.2</td>
<td>0.827</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TGS.3</td>
<td>0.816</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TGS.4</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing Ability</td>
<td>MRA.1</td>
<td>0.840</td>
<td>0.865</td>
<td>0.903</td>
<td>0.723</td>
</tr>
<tr>
<td></td>
<td>MRA.2</td>
<td>0.946</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRA.3</td>
<td>0.840</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRA.4</td>
<td>0.763</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRA.5</td>
<td>0.849</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Growth</td>
<td>MRG.1</td>
<td>0.805</td>
<td>0.884</td>
<td>0.923</td>
<td>0.765</td>
</tr>
<tr>
<td></td>
<td>MRG.2</td>
<td>0.788</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRG.3</td>
<td>0.869</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRG.4</td>
<td>0.856</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRG.5</td>
<td>0.792</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Results processing data by author’s (2023)

Measures of internal consistency such as the composite reliability, Cronbach’s alpha, and loading factor were used to verify the survey instrument’s dependability. When the variables under consideration had values more than 0.70, these measures demonstrated a high degree of internal consistency. To further bolster the data’s robustness, validity tests such as discriminant and convergent validity were carried out. These results are consistent with recommendations made by Hair (2019) for evaluating the validity and reliability of survey tools.

Table 2. HMTH Discriminant

<table>
<thead>
<tr>
<th>CST</th>
<th>IFM</th>
<th>PCD</th>
<th>WOM</th>
<th>CST X IFM</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRS</td>
<td>0.624</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRA</td>
<td>0.536</td>
<td>0.648</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TGS</td>
<td>0.444</td>
<td>0.534</td>
<td>0.723</td>
<td></td>
</tr>
<tr>
<td>MRA X MRS</td>
<td>0.537</td>
<td>0.696</td>
<td>0.515</td>
<td>0.732</td>
</tr>
<tr>
<td>MRA X TGS</td>
<td>0.637</td>
<td>0.582</td>
<td>0.721</td>
<td>0.693</td>
</tr>
</tbody>
</table>

Source: Results processing data by author’s (2023)

The discriminant validity of the latent constructs is confirmed by the fact that the HTMT ratios for every construct comparison are significantly below the 0.85 cutoff. This suggests that every latent construct in the model is measuring a different and unique feature that sets it apart from the other constructs. In capturing the subtleties of Market Segmentation, Targeting Strategies, Marketing Ability, and Market Growth in the Android product market in Banten, these results strengthen the trust in the measurement model’s validity and the uniqueness of the underlying constructs.

Figure 1. Internal Model Assessment

4.3 Path Analysis

The suggested model was analyzed using Structural Equation Modeling (SEM) with Partial Least Squares (PLS-4), looking at the connections between market segmentation, targeting tactics, marketing capacities, and market growth.

Table 3. Direct Effects Test

<table>
<thead>
<tr>
<th>Marketing Ability Effect</th>
<th>Indirect</th>
<th>p-Values</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Segmentation → Marketing Ability → Market Growth</td>
<td>0.563</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Targeting Strategies → Marketing Ability → Market Growth</td>
<td>0.334</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: Results processing data by author’s (2023)

The results of the indirect effect test indicate that targeting and market segmentation tactics have a major impact on market expansion in Banten’s Android product market. Through marketability, market segmentation has an indirect effect of 0.563 on market growth. An increase in market segmentation strategy raises marketability, which in turn raises market growth. Likewise, market growth is indirectly impacted by targeting strategy by 0.334 through marketability. This highlights the significance of a well-implemented targeting technique in promoting marketability and...
bolstering market growth. This study reinforces the significance of this indirect path by highlighting the mediating function of marketability in converting the influence of successful market segmentation and targeting techniques into observable market outcomes.

Both the direct and indirect effects' statistical significance was validated by bootstrapping analysis using 5,000 resamples. The robustness of the suggested model was validated by the finding that all confidence intervals for the direct and indirect effects were significant, leading to the conclusion.

Table 5. Summary Results

<table>
<thead>
<tr>
<th>Hypothesis Proposed</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Market Segmentation has a significant direct effect on Market Growth.</td>
<td>Significant</td>
</tr>
<tr>
<td>H2: Targeting Strategies have a significant direct effect on Market Growth.</td>
<td>Significant</td>
</tr>
<tr>
<td>H3: Market Segmentation has a significant indirect effect on Market Growth mediated by Marketing Ability.</td>
<td>Significant</td>
</tr>
<tr>
<td>H4: Targeting Strategies have a significant indirect effect on Market Growth mediated by Marketing Ability.</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: Results processing data by author’s (2023)

4.4 Model Fit

Model fit statistics, including the Normed Fit Index (NFI) and Goodness-of-Fit Index (GoF), give insight into how well the suggested model captures the connections between the variables. A strong match is shown by a GoF value of 0.83, indicating that the model accurately captures the conceptual framework. In a similar vein, the model’s robustness is further supported by the NFI value of 0.87, which shows that the theoretical model and the empirical data are well aligned.

High values of the Goodness-of-Fit Index (GoF) and Normed Fit Index (NFI) suggest that the proposed model fits the empirical data well. Model fit statistics shed light on how well the suggested model corresponds with the empirical data gathered from the survey. These indices show that the gathered data supports the conceptual framework’s hypotheses regarding the linkages between market segmentation, targeting techniques, marketing capabilities, and market growth.

Additionally, the market growth model’s good explanatory ability is indicated by its R2 value of 0.653. This indicates that the variables in the model, such as market segmentation, targeting strategy, and marketing capability, may account for the majority of the variability in market growth. The model also has strong predictive relevance for market growth, as seen by the Q2 value of 0.586. This suggests that the model is a useful tool for projecting market growth in the Banten Android product market since it not only explains historical data well but also possesses a high degree of prediction accuracy.

DISCUSSION

Businesses that sell Android products in Banten can take use of the empirical findings presented in this study. Market expansion is directly impacted by focused marketing initiatives and efficient market segmentation. Nonetheless, the need for firms to make investments in growing and enhancing their marketing capabilities is highlighted by the mediating function that marketing capabilities play. According to the research [33], [34], this suggests that businesses with stronger marketing capabilities are in a better position to convert their segmentation and targeting efforts into observable market results.

This study complements the research of [35] and adds to the body of literature by providing empirical evidence of the linkages between market segmentation, targeting methods, marketability, and market growth within the context of the Android product market. As per arguments made in [36], the inclusion of marketability as a mediator enhances theoretical comprehension by highlighting the fluidity of organizational capacities in determining market dynamics. Prior research has indicated that market driving strategies (MDS) impact player behavior and market structure, resulting in firm-level outcomes like customer and financial performance, organizational reputation, and sustained competitive advantage [37]. Furthermore, earlier studies have demonstrated how MDS can be triggered and how financial performance can be positively impacted by radical and incremental product innovation capabilities [38].
These findings suggest that in order to support market expansion and success in the Android product sector, market segmentation, targeting strategies, and marketability are essential.

Limitations and Future Research
Notwithstanding the insightful discoveries made, this study has many drawbacks. Potential bias is introduced by the cross-sectional design of the study and the use of self-reported data. For a more thorough understanding, future studies could employ a longitudinal design and incorporate more demographic data.

Practical Recommendations
When creating products, organizing market penetration campaigns, and formulating marketing strategies, businesses should take demographic demographics into account. To achieve optimal market growth, the approach must be tailored to the interests and characteristics of the major demographic segments.

5. CONCLUSION
This study offers a thorough examination of the Banten Android product market by fusing rigorous quantitative methods with insightful demographic data. Effective market segmentation and targeting techniques have a major impact on market growth, as demonstrated by the observed strong direct effects. Furthermore, the necessity for businesses to make investments in improving their marketing capabilities is highlighted by the mediating function of marketing ability. The suggested model's dependability is increased by the strong model fit and predictive metrics, which elevate its usefulness for both theoretical comprehension and real-world implementations. Companies are urged to take the market's demographics into account while developing their strategy, taking into account the ubiquity of young adults with moderate earnings. This research helps firms make well-informed decisions that lead to sustained growth in this dynamic landscape as the Android product market develops.

REFERENCES


