

## Role of Reference Group in Winning Banten Higher Education Service Market

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### Abstract

*The competitive conditions in the market of higher education services encourage every college in Banten to be able to retain students and acquire new students every year. The decision of the prospective student in determining the college of his choice is very important for the sustainability of every college in Banten. Understanding the factors that influence the prospective student's decision is expected to increase the competitive advantage of Banten college so as to win the target market. The purpose of this study is to test the model that explains the effect of education services and reference groups on the decision of prospective students in choosing a college. In addition, this study also aims to examine the role of mediation of reference groups that mediate the influence of educational services on the decision of prospective students in choosing a college. Survey research design is used to obtain data to be analyzed using SEM with the help of AMOS software. Questionnaires were distributed to 418 students from high school and vocational schools, both public and private in Banten. The SEM estimation results indicate that Service and Reference Group directly influence the decision of prospective students in choosing a college to continue their studies. In addition, the reference group proved to mediate the influence of the Services on the Decision of the Student Candidate. Thus, the reference group has an important role for the Education Services in determining the decision of the prospective student. Marketing communications should be directed in addition to the target market itself, but also to reference groups with positioning as distinct and superior educational services.*

**Keywords:** *Services, Reference Group, Decision, Mediation, Higher Education, Banten*

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### 1. Introduction

Banten is a province that is rich in natural resources potential but not balanced with the quality of human resources. The low quality of Banten human resources has caused the province to have the highest unemployment rate in Indonesia (JPNN, 2014). One of the causes of the low quality of human resources is the low quality of education marked by the lack of high school graduates and vocational high school who continue education to higher education level. Data from Central Bureau of Statistics (BPS of Banten Province, 2018) shows that in Banten in 2012 almost 85% of people aged 19 to 24 years did not continue their education to universities. This figure is still

slightly better when compared with the previous year especially the school participation rate in 2008 which only 10.5% or about nearly 90% of Banten people aged between 19 to 24 years did not continue to higher education. While in 2014, school participation is only 19.61%, which means 80.39% of students do not continue their education to a higher level.

Development of various fields in Banten requires qualified human resources. Education has a very central and strategic role, especially if it is associated with efforts to improve the quality of human resources. Higher education to produce human resources that can support development in Banten organized by universities be it university, high school, or academy. Thus, the existence of universities has an important role in producing competent human resources and able to support the development of Banten in all fields. The growth of universities in Banten has ups and downs. The development of the number of universities, students and educational workers in Banten can be seen from BPS data from 2007 to 2014 and PDDIKTI 2018 data shown in the following table.

**Table 1.1. List of Higher Education, Students and Educative Workers of Banten**

Year	Higher Education		Student		Education	
	State	Private	State	Private	State	Private
<b>Higher Education (Diknas)</b>						
2007/2008	1	91	9,329	51,290	321	4,682
2008/2009	1	102	9,342	51,510	443	4,171
2009/2010	1	66	13,135	20,462	448	4,574
2010/2011	1	94	13,627	26,655	425	4,097
2013/2014	1	113	15,244	117,689	807	4,102
2014/2015	1	109	16,140	153,690	508	3,783

Source: BPS (2018).

**Table 1.2. Number of Banten Higher Education in 2018**

Type	State	Private	Total
Academy	0	30	30
Polytechnic	2	6	8
College	3	99	102
Institute	1	2	3
University	2	18	20
Total	8	155	163

Source: PDDIKTI (2018)

The increase in the number of private universities began to be seen in 2008, but decreased dramatically in the next year and finally back up in 2013. While in 2018, the number of higher education institution increased to 163, consisting of eight states and 155 private. The growth of Higher Education Institution in Banten certainly brings hope for an increase in human resources needed for the development of Banten. But behind it, all, the increase in the number of Higher Education Institution has created increased competition because of the lack of market contested.

Competitors can come from anywhere. Higher Education Institution in Banten faces direct and indirect competition. Direct competition occurs between the Higher Education Institution within

the Banten both between private and State. The direct competition also involves competitors who come from outside the province of Banten or abroad. The toughest competition among Higher Education Institution in Banten was recorded in 2009 marked by 30 percent or about 30 universities in Banten experiencing bankruptcy due to lack of interest (Tempo, 2009).

Another threat to Banten Higher Education Institution is still possible to come from outside Indonesia. The interest of foreign universities to open branches in Indonesia is still high. They assess the number of students in Indonesia is very potential to be recruited. In the future, if the global market is more open and the government gives permission of foreign universities to enter and play in Indonesia, it is not impossible that Banten becomes one of their chosen target markets. This condition would make Higher Education Institution in Banten increasingly squeezed if not immediately improve the quality in the face of global competition.

The existing competition conditions encourage every college in Banten must be able to maintain the loyalty of students who already have and also must be able to get new students every year so that every college has funds for the provision of higher education. Less let alone until the absence of new students who enter will make a college can no longer operate until closing college. Thus, the sustainability of a university is the very determined success of new students every year. In this condition, the behaviour of prospective students, especially how they make the decision to choose a college as their place of study, becomes very important for the college to be known and influenced.

Consumer decisions are influenced by many factors including marketing efforts and other factors such as social factors or reference groups (Kotler and Keller, 2009; Schiffman and Kanuk, 2009). Prospective students as prospects for universities in determining their choices are influenced by college marketing programs as well as reference groups as a comparison and source of information such as family, friends, or teachers.

Some research in Indonesia with context outside of Banten has proven that marketing program of service consisting of product, service, location, promotion, physical proof, process and person, as well as reference group influences decision made by the prospective student in determining place they continued their studies. Thus, a good marketing program, including education services as one of its components and a reference group, can be a predictor of a prospective students' decision in the Banten region in determining their choice.

Through educational services and reference groups as well, universities can influence prospective student decisions. Thus, education services and reference groups are two important factors that can determine the sustainability of universities and the ability of these universities to survive and win the market of higher education services.

Due to the importance of education services and reference groups for the sustainability of universities and winning the market of higher education services in Banten, it is necessary to conduct research on education services, reference groups and prospective student decisions in determining the choice of college with the Banten context. The findings of this research are expected to provide competitiveness for universities in the Banten region to survive or win the

competition in the higher education service industry, whether facing competitors within Banten itself or from outside Banten, Overseas as well as their indirect competitors.

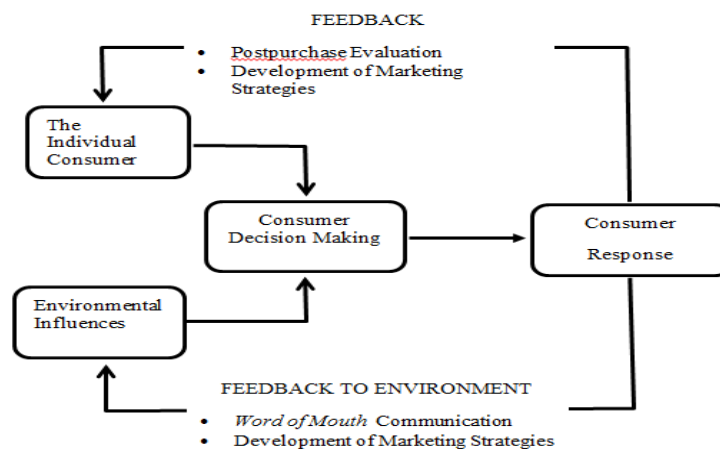
This research is the development of Widikusyanto and Satria (2015) research that examines the effect of the marketing mix and reference group on the decision to choose the prospective student. The results of the study found that education services were the most significant factor compared to other factors which were followed by the Reference Group. Therefore, this study is interested to focus on two independent variables that exist in research Widikusyanto and Satria (2015), namely Education Services and Reference Group as well as one dependent variable, namely Selecting Decision of Higher Education Institution.

In research Widikusyanto and Satria (2015), reference groups are positioned the same as the marketing mix as independent variables. In this study, reference groups are positioned as variable mediators that mediating the influence of Educational Services on Choosing Decision of prospective students. Thus the question of this research is whether the model is hypothesized in accordance with the empirical data obtained and whether the factors of marketing stimulus consisting of services education and reference groups have an immediate effect on prospective student decisions. In addition, does the Reference Group mediate the effect of educational services on the decision of prospective students in choosing a college to continue their studies? The subject of this study is limited to only third graders of senior high school and vocational school or equivalent in Banten Province. The object this research focused on universities that became the first choice of respondents in continuing their higher education which is not limited to universities in Banten only.

## 2. Literature Review

### 2.1 Decision on Selecting Higher Education Institution

The decision-making process is a basic psychological process that plays an important role in understanding how consumers actually make purchasing decisions. The Assael Consumer Behavior Model (2004) and Kotler and Keller Models (2009) can help understand how consumers behave in meeting their needs. The Assael Consumer Behavior Model (2004) is shown in the following figure.



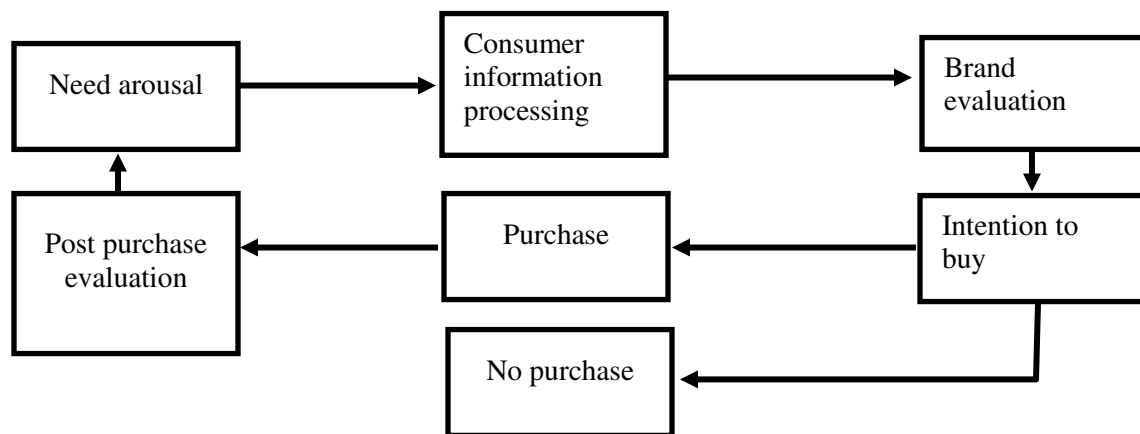
Source: Assael (2004: 22)

**Figure 2.1. Consumer Behavior Model**

Based on the Assael Model (2004: 22) the consumer purchasing decision process is influenced by individual consumers and the environment. Consumer decision making is the process through which consumers meet their needs by sensing and evaluating brand information, taking into consideration alternate brand alternatives that meet their needs and ultimately choosing a particular brand (Assael, 2004: 21).

Individual consumers who have consumer needs, perceptions and attitudes affect their choices. Similarly, demographics, lifestyles and consumer characteristics influence the choices they make over an existing set of brand alternatives. Environments such as culture, marketing organizations and reference groups also have an influence on consumer decisions.

After consumers decide to choose a particular brand and make a purchase or use a brand, consumers provide a response in the form of post-purchase evaluation which then impact on consumers and word of mouth communication that impact on the environment. More details, the purchasing decision process is described in the following model.



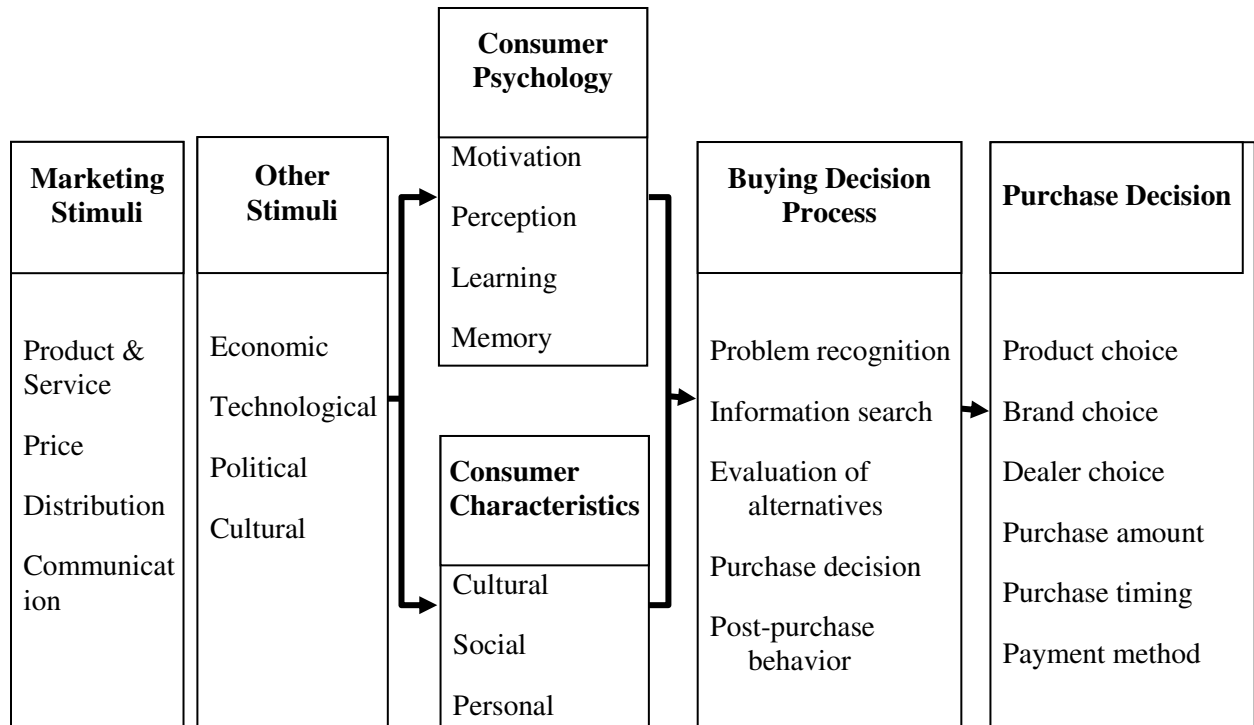
Source: Assael (2004: 43)

**Figure 2.2. Consumer Purchase Decision Process**

Based on the Assael Model (2004: 43) that explains the buying decision process, Consumers make decisions starting from the emergence of their perceived needs. Then consumers gather the information needed to meet their needs. Furthermore, based on the information obtained, consumers evaluate the brand and choose among alternatives of existing brands. Then consumers form the intention to buy the brand that has been selected.

After that, the consumer can make a purchase or not buy. If the consumer buys, then afterwards the consumer does a post-purchase evaluation to assess the level of satisfaction with the brand he purchases. If he or she is satisfied, the consumer will re-purchase and spread positive news about the brand. If disappointed, the consumer will stop buying or buying a brand different from the previous one and spreading the negative news.

The Kotler and Keller Model (2009: 202) below describes the various stimuli and variables that influence consumers in determining their purchasing decisions.



Source: Kotler and Keller (2009: 202)

**Figure 2.3. Consumer Behavior Models**

The process of consumer purchase decision making passes through five stages (Kotler and Keller, 2009: 202), including 1) Recognition of the problem, 2) information Search, 3) Evaluation alternative, 4) Purchase decision, and 5) Post-purchase behaviour. If linked to the decision process of prospective students in determining the choice of college that will be where they continue their studies, then they will feel the need for further education to meet their social needs of higher social status and better prosperity in the future.

Once they realize that there is a need they want to fulfil, the next step is to find as much information as possible that can help them make the right choices and reduce the risk of choosing a college. Sources of information about colleges can come from personal Resources such as family, friends, neighbours and acquaintances. Commercial sources such as college ads, salespeople, and brochures. Public sources such as mass media and college-ranking organizations.

After the collection of information is considered sufficient, prospective students enter the stage of determining the choice of alternative colleges that match the criteria they managed to collect. The decision appears to be in the form of an intention to continue college at the chosen university until it really manifests itself in the behaviour of registering and becoming a student.

The last stage is post-purchase behaviour or post-register and receives educational services. At this stage, consumers will evaluate the services they receive and form satisfaction. Consumers evaluate by comparing between expectations and reality. If the educational services they feel are equal to or more than their previous expectations, then they will be satisfied and tend to survive the study until they graduate and spread the positive news about the college of his choice. But if



education services lower than their expectations before entering, then there will be dissatisfaction and form a negative word of mouth.

## 2.2 Higher Education Services

The definition of education, higher education and higher education institution according to the law of the Republic of Indonesia No. 12 years 2012 is:

Education is a conscious and planned effort to create an atmosphere of learning and learning process so that learners actively develop their potential to have spiritual strength, self-control, personality, intelligence, noble character, as well as skills needed him, nation and state.

Higher Education is the level of education after secondary education which includes diploma programs, undergraduate programs, master programs, doctoral programs, and professional programs, as well as special programs, organized by universities based on Indonesian culture.

"Higher Education Institution is a unit of education that organizes Higher Education. "

Higher Education Services is a product of a College or University. Products are anything that can be offered to the market to get attention, purchase, use or consumption that can satisfy the wants or needs of consumers (Kotler and Armstrong, 2012: 248). Products consist of goods and services. Service is defined as an activity, benefit or satisfaction offered for sale that is essentially intangible and does not result in ownership of such services (Kotler and Armstrong, 2012: 248).

Referring to the definition of education and higher education according to RI law. 12 the year 2012 and the definition of services according to experts, Higher Education Services can be defined as educational activities include diploma programs, undergraduate programs, master programs, doctoral programs, and professional programs, as well as specialist programs, organized and offered universities that are basically not tangible and produces no ownership to develop the potential of learners in order to have religious spiritual power, self-control, personality, intelligence, noble character, as well as the skills needed of him, society, nation and state.

As more simply, Higher Education Services can be defined as activities education at higher levels, organized and offered universities that are essentially intangible and do not generate ownership to develop the potential of learners.

The Marketing Program for Services undergoes the development of a Traditional marketing mix or program consisting of 4P: Product, Price, Place and Promotion to 7P. The marketing mix is the organizational elements of a company that can be controlled by the company in communicating with consumers and will be used to satisfy consumers. Kotler and Keller (2009) formulated a marketing mix consisting of 4P, as follows:

- 1) The product, consisting of Physical good features; Quality level; accessories; packaging; warranties; product lines; and branding.
- 2) Place (distribution channel/ location), which consists of channel type; exposure; intermediaries; outlet locations; transportation; storage and managing channels.

- 3) Promotion, which consists of salespeople; advertising; sales promotion; publicity and internet / web strategy.
- 4) Price (Price), which consists of flexibility; price level; terms; differentiation; discounts; and allowances.

Whereas Zeithaml et al. (2009: 24) to formulate a marketing mix for services consisting of seven P namely, Product, Place, Promotion, Price, People, Physical Evidence and Process. Products or Services is one marketing mix or program that marketers must develop to satisfy customer needs. Aspects to be considered in designing products or services are features of physical goods, service quality levels, accessories, packaging, warranties, product lines and brands (Zeithaml et al., 2009: 24).

### **2.3 Reference Group**

The reference group is an important social group for consumers and a comparison for such consumers (Escalas and Bettman, 2003). The Reference Group is considered a frame of reference for individuals in their purchasing or consumption decision making (Shiffman and Kanuk, 2008: 292). Reference groups are also defined as one or more persons used as comparative or reference reasons in forming effective responses and cognitive responses and behaviour (Peter and Olson, 2014: 132). Kotler and Armstrong (2012: 163) define reference groups as direct or indirect comparison points or as a reference in shaping one's attitudes and behaviour. While Asael (2004: 398) interprets the reference group as a group that became a reference point for individuals in shaping their attitudes and behaviour.

Reference groups can have a direct and indirect influence on consumer purchasing decisions. Reference groups that have direct influence include groups with whom one interacts directly with family and close friends. Referral groups that have an indirect influence consist of people or groups who have no direct contact with affected consumers, such as celebrities, corporate leaders, athletes, political figures, or someone who is considered successful.

Reference groups can be divided into two types, namely membership group and aspiration group (Asael, 2004: 401). Group membership consists of four types, namely:

- 1) Informal primer: family and friendship group.
- 2) Informal secondary: shopping group, sports group.
- 3) Formal Primary: School Groups, Business Groups
- 4) Secondary Formal: Alumni Groups

While aspirational groups are divided into two groups:

- 1) Aspiration group: a group of people who hold high positions in an organization such as the board of directors, top management, commissioner.
- 2) A group of symbolic aspirations: a group of soccer club enthusiasts, organizations or artists.

The Reference Group has several characteristics that influence their influence on consumers (Assael, 2004: 406), namely:

- 1) Norms. Norms are the rules and standards of group behaviour.
- 2) Value. Values are the confidence spread among group members about what behaviours they want and do not want in the group.



- 3) Roles. Roles are functions that group members or group tasks assigned to members to achieve organizational goals. The family when making decisions about the products they are going to buy shows the roles of each group member, namely the influential role, the gatekeeper, the decision maker, the buyer and the consuming or the using.
- 4) Status. Status is the position that group members occupy in a group.
- 5) Socialization. Socialization is the process of group members learning the norms and roles that exist within a group.
- 6) Power. Power or power is the influence that groups have on group members. The source of group influence is the power of the expert, the power of the referent and the power of reward. Reference groups have three types of influences that can affect members of their group. The types of influence types are shown in the following table.

**Table 2.1 Influence Types of Reference Groups**

Nature of influence	Objectives	Perceived characteristics of source	Type of power	Behaviour
Informational	Knowledge	Credibility	Expert	Acceptance
Comparative	Self-maintenance and enrichment	Similarity	Referent	Identification
Normative	Reward	Power	Reward or coercion	Conformity

Source: Assael (2004: 413)

The three types of influences that the reference group possesses are the influence of information, the comparative influence and normative influences. The effect of information arises because consumers need knowledge of a product from their group that is believed to be a source of credible information, and consumers believe that information can increase knowledge of the products it chooses. The effect of information will be effective when the source of information is considered credible by the consumer who is often shown by an expert, such as a doctor. The type of strength is the power of the expert.

Comparative influence appears in consumers who want to maintain and develop the image or concept itself. Consumers will identify other members of the reference group that are deemed to be able to protect or enhance their self-image. Consumers will identify or imitate the attitudes and behaviour of other reference group members if there is any resemblance to it. The type of strength is the power of referents.

Normative influences affect consumers who want to produce certain behaviours that are appropriate and obey their group. This normative influence arises from the strength of the reference group: the power of reward or coercion and punishment. The type of strength is the power of reward and coercion.

## 2.4 Theoretical Framework and Research Model

The Educational Services and Reference Group as one component of a marketing program becomes a factor that influences how consumers determine their decisions. How services are

designed to meet customer satisfaction becomes an important consideration of consumers in determining the choice of purchase.

Educational services related to activities or benefits offered by universities to the market, intangible and non-proprietary, may be either disciplinary or study options, accreditation status, educational quality and graduate prospects. Each of these dimensions becomes an important consideration of prospective students in fulfilling their needs for education services, whether the need for self-development, socialization, status, job opportunities and other needs. Errors in considering the education services offered will have an impact on not achieving the purpose of buying such educational services, which ultimately lead to disappointment, the intention to stop or change lectures and negative word of mouth. Vice versa, prospective students who make the right decision based on the consideration of educational services offered, will get satisfaction, the spirit of continuing college to completion, academic and non-academic achievement and positive word of mouth. The reference group proved to have a role in determining decisions of prospective students. reference groups may consist of both parents 'and siblings' families, peers, schools, business groups and so on. The reference group can be a source of suggestion or inspiration of prospective students in making their choices. The closer and credible the reference group is, the stronger its effect on the decision of the prospective student. Vice versa.

There have been many studies that examine the relationship of consumer purchase decisions with various factors that affect it. Various studies have proven that marketing programs include educational services therein (Refer and Etale, et al., 2012; Kurniawati, 2013; Suhendra, 2013) and reference groups (Reza and Valeecha, 2013; Eszter, 2008; Bearden and Etzel, 2001, Sawaji et al., 2010; Martini, 2013) becomes the determinant for consumers in making decisions.

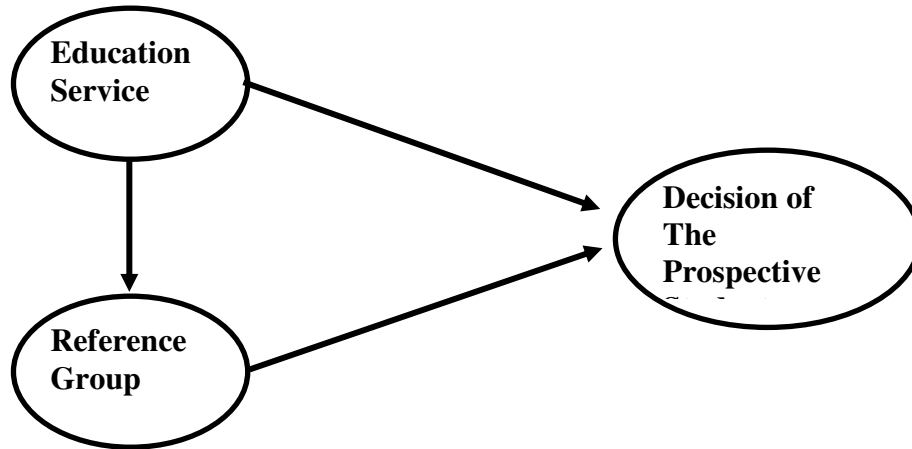
Educational services have a direct influence on the decision to choose a prospective student, but it appears that the education service also has an indirect effect on the decision of the prospective student through the reference group. Reference groups can be factors that increase the impact of educational services on decisions. In other words, reference groups have a role in mediating the impact of educational services on voting decisions. Thus, reference groups have an important role for education services.

Reference groups such as families that one parent has a role in determining their child's decision in choosing a college to continue his studies. How parents' attitudes, behaviours and recommendations to direct their children's decisions are influenced by their perceptions of what the child's decision is about. Parental perceptions are shaped by internal and external factors. Internal factors include their memory and experience, while external factors are from marketing stimuli, such as the promotion of a college as well as their interactions with others and the macro marketing environment.

The parents' positive perceptions of the educational services offered can be established through marketing communication activities and delivery of the value offered by a university. Perception is the selection, organizing and interpretation of marketing and environmental stimuli into a logical or reasonable picture (Assael 2004: 146). The more positive the parent's perception of the education service will be the stronger the educational services affect the attitude and behaviour of parents who in the end, parents as one of the elements of the reference group to form a

decision to choose his son as a prospective student. As a result, the better the education services will be stronger in influencing the reference group, which will ultimately strengthen the decision of the prospective student.

Based on the description of how the various variables studied were related, the hypothesized research model is presented in the following figure.



Source: Adapted from Widikusyanto and Satria research model (2015)

**Figure 2.4. Research Model**

### 3. Research Methods

#### 3.1 Types of Research

This type of research is quantitative and causal and is applied research. The model hypothesized in the study will be tested quantitatively using statistics.

The model tested is causal although its cause-and-effect relationship is based only on empirical theory and evidence from previous research. This research is applied research, so the purpose of this research is to solve the problems faced by institutions of higher education institution in Banten. The problem facing them is the increasingly fierce competition in the education service market, both inside and outside Banten that has the potential to weaken and even kill their higher education.

#### 3.2 Operational Definition of Variables

These variables are measured using the indicators shown in Table 3.1. The scale used is a 7-point Likert-type scale that provides an alternative answer from one to seven, ie 1 = strongly disagree, 2 = disagree, 3 = less agree, 4 = neutral, 5 = somewhat agree, 6 = agree, and 7 = strongly agree.

**Table 3.1. Operational Definition of Variables**

VARIABLE	DEFINITIONS	INDICATORS
Education services	Activities and benefits offered by universities, which are essentially intangible and do not result in any ownership.	1. Availability of Prodi in demand 2. Accreditation Status of Prodi 3. Quality of Education 4. Prospects of Graduates

VARIABLE	DEFINITIONS	INDICATORS
Reference Groups	A person or group that is used as a reference for individuals in decision making to choose Higher Education Institution.	1. Family 2. Friendship 3. School 4. Social Media
Decision	Choosing and intending to continue study at Higher Education Institution that selected by prospective students.	1. The intention to remain a study 2. The right college choice 3. The Intention to Will does not study elsewhere 4. The Intentions to Choose a college 5. The Intention to continue studying

### 3.3 Samples

The sampling method used is nonprobability sampling. Use of this method to facilitate the collection of data. While the sampling technique used is purposive sampling. Selection criteria of this research sample are the third graders of high school and vocational school or the equivalent in Banten province both private and domestic. Third-year students are selected because they are prospective students or existing college markets and need to learn their behaviour in making choices.

The sample size planned is the number of statements to extract information on the variables studied by 13 points multiplied by 30, so the sample size is 390. To avoid the risk of the defective and unworkable sample and the possibility of outliers, the sample plus 40 respondents so the total size of the sample is as many as 430 respondents. Data collection method used is a self-administered survey by distributing questionnaires directly to respondents.

### 3.4 Test of Research Instruments

The construct validity is tested using confirmatory factor analysis with a minimum value of loading factor per item or indicator is  $\geq 0.5$ , ideally 0.7 or higher (Hair et al., 2006: 777). An indicator or question item with a loading factor below 0.5 will not be included in the structural model analysis.

Reliability will be tested using Cronbach's alpha with a Cronbach's alpha coefficient of at least 0.60. The instrument is considered reliable if the value of Cronbach's alpha is equal to or greater than 0.6 (Hair et al., 2006: 778).

### 3.5 Data Analysis

Data were analyzed using structural equation modelling (SEM) with the help of AMOS program. The estimation technique to be used is maximum likelihood estimation (MLE).

Hypothesis testing can be performed after the model meets the required GOF value or the model is acceptable because it has been in accordance with the empirical data. The process of hypothesis testing using one side because the direction of the relationship between the variables tested is clear that the positive that has been determined based on the theory used. The hypothesis is accepted if the significance level of the relationship between the construct variables in the regression weights of the maximum likelihood estimation has a value of p-value  $< 0.05$  and

by looking at the critical ratio that must have a value greater than the value of t table + 1.66 for one-sided test with the error rate ( $\alpha$ ) 0.05.

## 4. Results

### 4.1 Profile of Respondents

Profil respondents in this study are shown in the following table.

**Table 4.1. Profile of Respondents**

	Frequency	Percent
1. Gender		
Male	118	28.2
Female	300	71.8
Total	418	100.0
2. Age		
17-20	417	99.8
21-26	1	0.2
Total	418	100.0
3. Employment of Parent		
Entrepreneur	218	52.2
Private Employees	78	18.7
Civil servant/Army/Police	66	15.8
Other	42	9.8
Farmer	14	3.3
Total	418	100.0
4. Domicile		
Cilegon	89	21.3
Serang	329	78.7
Total	418	100.0
5. School		
SMAN 3 CILEGON	91	21.8
SMKS 17 KOTA SERANG	85	20.3
SMAN 5 KOTA SERANG	82	19.6
SMK PASUNDAN 1 KOTA SERANG	82	19.6
SMA 3 SERANG	77	18.4
SMKN 02 CILEGON	1	0.2
Total	418	100.0

The respondents of this study are women dominated by 71.8%, while the rest are men. The respondents of this study were predominantly between 17-20 years old as much as 99.8%, while aged between 21-26 years. The majority of respondent's parents work as entrepreneurs as much as 52.2%, while the rest work as Private Employees (18.7%), Civil Servants / Army/ Police (15.8%), Farmers (3.3%) and others 9.8% %. The majority of respondents reside in Serang as much as 78.7%, while the rest are domiciled in Cilegon as much as 21.3%. Respondents attend SMAN 3 Cilegon 21,8%, SMKS 17 Serang City 20,3%, SMAN 5 Serang City 19,6%, SMK Pasundan 1 Serang City 19,6%, SMA 3 Serang 18,4% and SMKN 02 Cilegon 0.2%.

### 4.2 Description of Variable

Research variables assessed by respondents are Services, Group Reference and Decision. The range of values for Services is from 0 to 7 with very bad to very good meaning. The Reference

Group of the very not referenced to the very reference, and the decision variables from very weak to very strong. Descriptive of Variables are shown in the following table.

**Table 4.2. Descriptive of Variable**

Variable	Mean	Std. Deviation
Service	5,6426	1,01422
Reference	4,6404	1,40449
Decision	4,3584	1,45252

The average respondent rated the educational services provided by their first-choice college is good. The reference group is enough to be a reference for respondents in choosing the first choice college. While the decision of respondents to actually continue their studies at their first choice college is somewhat stronger. The decision variable is the variable that gets the lowest average value compared to the others. While the variable that gets the highest average value is the service. A high standard deviation of these five variables showed the value given by respondents vary quite higher than average.

#### 4.3 Validity and Reliability Test

The result of Validity and reliability instrument test showed KMO value 0.864 which means the data collected can be analyzed using factor analysis techniques. The result of factor analysis with valid statement item is shown in the following table.

**Table 4.3. Validitas Test Results**

	Rotated Component Matrix <sup>a</sup>		
	1	2	3
Service1		0.814	
Service 2		0.817	
Service 3		0.567	
Reference1			0.678
Reference 2			0.805
Reference 3			0.840
Decision1	0.772		
Decision 2	0.766		
Decision 3	0.835		
Decision 4	0.890		
Decision 5	0.780		

\*Only the loading value > 0.5 is displayed

An invalid statement item has been omitted or will not be used for further analysis.

Instrument reliability test results shown in the following table shows all instruments used have been reliable so that the existing data can be analyzed further to test the model hypothesis.

**Table 4.4. Reliability Test Results**

Variable	Coefficient Cronbach's Alpha	Cut-Off	Results
Service	0.770	0.60	Reliable
Reference Group	0.732	0.60	Reliable



Decision	0.901	0.60	Reliable
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#### 4.4 Hypothesis testing

Based on Outlier analysis, 12 respondents indicated outlier were eliminated, so total sample used amounted to 418. SEM estimation gives some output among them is model fit and regression coefficient value of each independent variable along with its level of significance. Model fit estimation results are shown in the following table.

**Table 4.5. Fit Model**

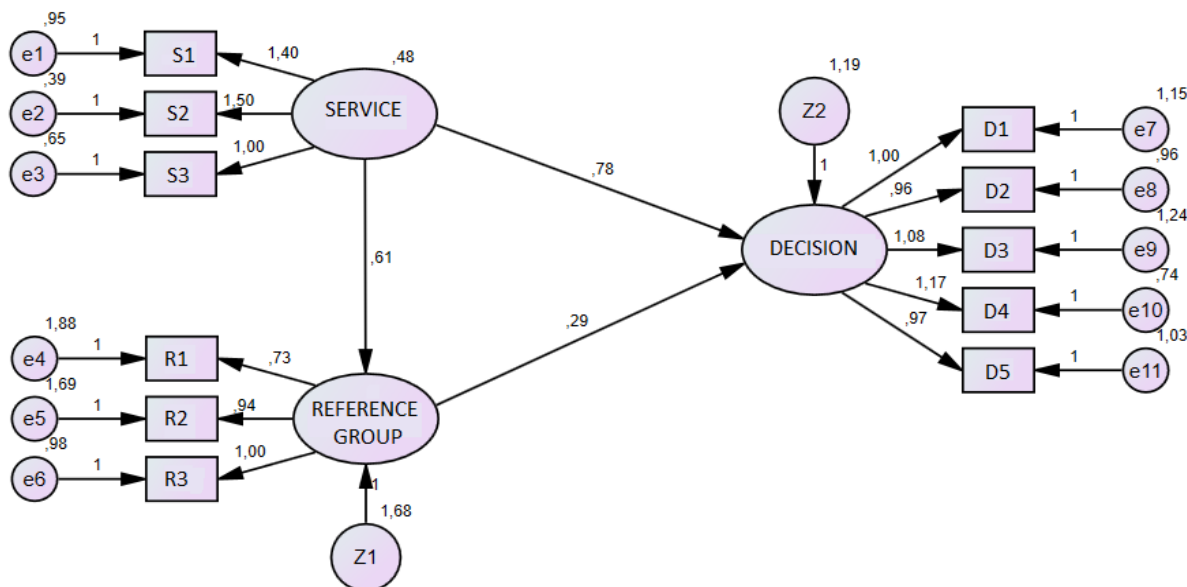
Index	Reference Values	SEM Results
<i>Chi-Square</i> ( $X^2$ )	As small as possible	186.174
<i>p-value</i>	$\geq 0.05$	0.000
CMIN/DF	$\leq 5$	4.541
GFI	$> 0.90$	0.914
AGFI	$> 0.90$	0.861
CFI	$> 0.90$	0.933
RMSE	$\leq 0.08$	0.092

The estimated value of the SEM fit model in the table above shows a good fit model, as it meets most of the reference values of the fit model index criteria, although AGFI is slightly below the reference value and the RMSEA is slightly above the reference value. CMIN / DF, GFI, CFI meet the specified reference value. Thus, the hypothesized model corresponds to the empirical data collected. The SEM estimation results on the effect of each variable are shown in the following table.

**Table 4.6. Value of Regression Weights**

Variable Relationship	Estimate	S.E.	C.R.	P
REFERENCE < SERVICE GROUP	0.615	0.126	4.891	***
DECISION < REFERENCE GROUP	0.291	0.057	5.101	***
DECISION < SERVICE	0.775	0.117	6.640	***

Based on the above table, the value of P (probability) and critical ratio shows all the variables have a significant effect on the decision of prospective college student. SEM estimation results in more detail shown in the following figure.



**Figure 4.1. Final Result of SEM Estimation**

The fit model test shows that the proposed or hypothesized research model has fit, which means the research model is in accordance with the empirical data. Thus, the proposed hypothesis model has been supported by empirical data collected. SEM estimates show that all independent variables affect student decisions. Educational Services and Reference Groups proved to have an effect on student decision. These results prove that the Education Services and Reference Groups influence the decision of prospective students in choosing colleges to continue their studies. Of the two directly influencing variables, the Education Service with a regression coefficient of 0.775, has a greater influence than the Reference Group which is only 0.291.

Overall, the findings in this study are consistent with the results of research from Indartini (2010), Aini et al. (2012), Kurniawati (2013), Suhendra (2013), Sawaji et al. (2010), and Martini (2013). In addition, the reference group also proved to mediate the impact of educational services on student decisions. The indirect effect of educational services on decisions by reference group is 0.179. Although smaller than the direct Reference group's influence, the combined direct and indirect influence of the Education Services on Decision becomes much greater than the direct influence of the Reference Group.

#### 4.5 Discussion

Educational services that are perceived as different and superior as well as in accordance with the needs and desires of students will be able to be the driving factor of prospective students to choose a campus that offers such educational services. The better the education services offered by universities and the more appropriate the wishes of prospective students, the prospective students will tend to form a stronger intention to continue their studies in colleges that offer such educational services.

To influence the decision of choosing a prospective student, every college should pay attention to the educational services offered. Colleges must provide majors of interest to the target market,

have accreditation status of majors in accordance with market needs and perceived by prospective students as colleges that offer high-quality education services and have excellent graduates and quickly absorbed by the world of work.

Reference Groups consisting of Family, Peers and Schools are the factors that influence the decision to choose a prospective student. Families especially parents become interested parties in this regard, especially when parents become the only source of tuition for prospective students. Often parents believe they know better and feel that their choices are true, especially when associated with the education fund to be issued by parents. The bigger the funds they have to spend, the greater the push parents have to engage in deciding where their children are going to study. Parents also often encourage their children to continue their studies in the same campus with them, especially if the parents' pride is so strong against their alma mater. In addition, the acquaintance of an insider that a parent has on campus or the status of a Parent's Lecturer can also be a factor that encourages them to direct their child into the campus where the parents work.

Their parents' educational background and campus can also be an inspiration for their children, especially if children are positive about their parents, which will shape the decision of the child in choosing a college. Peers are a source of information and often have a strong persuasive influence on prospective students to determine where they will continue their education, especially directing prospective students to go on to their preferred campus. The teacher is a member of the school group. Teachers as educators as well as role models can have the persuasive power to direct some students in determining the college where they continue their studies. Educational background of teachers can be an inspiration for their students to determine where they will continue their education. The results of the study indicate that the Reference Group mediates the influence of Education Services on Decision. The mediation role of the Reference Group allows Education Services to multiply its influence. Therefore, the Reference Group becomes important for every marketer as they design and offer Education Services that can effectively attract new customers and retain old customers or students.

Reference Group, for example, the family which one of them is the parent has a role in determining the decision of his child in choosing a college to continue his studies. How parents' attitudes, behaviours and recommendations to direct their children's decisions are influenced by their perceptions of what the child's decision is about. Parental perceptions are shaped by internal and external factors. Internal factors include their memories and their experiences of higher education and how they experience when continuing studies at the same level that their children will enter. While external factors are from marketing stimuli, such as the promotion of a college, both through print and broadcast media, the process of administering higher education that is seen directly, as well as their interaction with others as well as macro marketing environment such as economic, cultural, social and etc.

Positive perceptions of parents, peers and teachers on educational services offered can be established through marketing communication activities and delivery of value offered by a college. The more positive the perceptions of parents, peers and teachers on education services will be the stronger the education services affect the beliefs, attitudes and behavior of parents,

peers and teachers who in the end, parents, peers and teachers as one element of the group reference form the decision to choose her child, her friend or student as a student candidate.

Thus, the better the education services will be the stronger the influence on the reference group, which in turn will be stronger also the effect on the decision of prospective students. The relationship between these variables indicates that the Reference Group has a mediating role for the Education Services. Compared to using only the direct influence of Educational Services, marketers should also design how the Reference Group becomes a mediator for Education Services that will be able to multiply their influence on student decisions.

## 5. Conclusion

The increasing competition in education services in Banten, encouraging each university to increase the competitive advantage in surviving or winning the competition in a limited market. They not only compete with universities in Banten, but they also have to compete with educational institutions outside Banten and also similar institutions fighting over the same market.

The results showed that educational services and reference groups were factors that influenced the decision of prospective students in choosing colleges to continue their education. The results of this study show that Educational Services have a greater direct influence than the Reference Group.

Other findings provide evidence that reference groups are the factors that mediate the impact of the Education Services on Decision on Selecting prospective students. The two influential variables, Education Services and Reference Groups, should be the focus of every college, especially the Education Services and Reference Groups that have the greatest influence.

Higher Education Institutions can design marketing strategies and programs to shape different and superior educational perceptions that can meet the needs and wants of prospective students. In addition, educational service marketers should also design marketing strategies and programs that utilize the Reference Group to influence the decision of prospective students, which also play a role in doubling the power of the influence of the Education Services they offer.

## References

- 1) Aini, Yulfita, Rohman, Fatchur and Rahardjo, Toto (2012). Effect Analysis of Marketing Mix on Student Decision in Continuing Studies in Higher Education. *Brawijaya University Online Journal*. Available: <http://elibrary.ub.ac.id/handle/123456789/33041>.
- 2) Assael, Henry (2004). *Consumer Behavior: A Strategic Approach*. New York: Houghton Mifflin.
- 3) Bearden, William O. and Etzel, Michael J. (2001). Reference Group Influence on Product and Brand Purchase Decisions. *Journal of Consumer Research*, Vol. 9, 183-194.
- 4) BPS of Banten Province (2018). School Participation Rate (Online). Available: <https://banten.bps.go.id/dynamictable/2015/04/30/26/angka-posisi-sekolah-aps-menurut-kabupaten-kota-dan-kelompok-umur-di-provinsi-di-Banten-2011-2014.html>.
- 5) BPS (2018). Number of Universities, Students, and Educational Personnel (State and Private) Under the Ministry of Education and Culture by Province academic year 2013 / 2014-2014 / 2015 (Online).

Available: <https://www.bps.go.id/statictable/2015/09/14/1839/jumlah-perguruan-Tinggi-mahasiswa-dan-Tenaga-education-Negeri-dan-swasta-di-bawah-Kementerian-Pendidikan-dan-kebudayaan-menurut-provinsi-2013-2014-2014-2015.html>.

- 6) Escalas, Jennifer Edson and Bettman, James R. (2003). You Are What They Eat: The Influence of Reference Groups on Consumers' Connections to Brands. *Journal of Consumer Psychology*, Vol. 13, No. 3, 339-348.
- 7) Eszter, Tarkanyi (2008). The Role of Reference Group Influence in Consumer Behavior. Doctoral Dissertation of Szechenyi Istvan University.
- 8) PDDIKTI (2018). Graph Number of Higher Education Institution (Online). Available: <https://forlap.ristekdikti.go.id/perguruantinggi/homographs>.
- 9) Hair, Jr., J.F., W.C. Black, B.J. Babin, R.E. Anderson, and R.L. Tatham (2006). *Multivariate Data Analysis*. 6th edition. Upper Saddle River: Pearson Education.
- 10) Indartini, Mintarti (2010). Factors Affecting Student Decisions Choosing Faculty of the Economics University of Merdeka Madiun. *Journal of Social*, Vol. 11, No. 2.
- 11) JPPN (2014). Unemployment in Banten Reaches 209,090 (Online). Available: <http://m.jpnn.com/news.php?id=225781>
- 12) Kotler, Philip and Kevin L. Keller (2009). *Marketing Management*, 13th edition. New Jersey: Pearson Prentice Hall.
- 13) Kotler, Philip and Gary Armstrong (2012). *Principles of Marketing*. 14th edition. London: Prentice Hall.
- 14) Kurniawati, Dyah (2013). The Influence of Marketing Mix Strategies on Student Decisions Choosing Catholic University Widya Mandala Madiun. *Journal of Widya Warta*, Vol. 37, No. 01.
- 15) Martini (2013). Analysis of Factors Affecting the Election of Accounting Department as a Place of Study in Higher Education. *Journal of Economics and Management*, Vol.1, No.1.
- 16) Peter, J. Paul and Olson, Jerry C. (2014). *Consumer Behavior and Marketing Strategy*. Issue 9. Jakarta: Salemba Empat.
- 17) Reza, Syed Asghar and Valeecha, Suman (2013). Influence of Social Reference Groups on Automobile Buying Decision-Research on Young Executives. *World Review of Business Research*. Vol. 3, No. 4, 197-210.
- 18) Ristekdikti.go.id (2012). The Law Number 12 the Year 2012 on Higher Education (Online). Available: <http://kelembagaan.ristekdikti.go.id/index.php/download/updating-undang-nomor-12-Tahun-2012-tentang-Pendidikan-Tinggi>.
- 19) Sawaji, Jamaluddin, Hamzah, Djabir and Taba, Idrus (2011). Student Decision Making in Selecting Private Universities in South Sulawesi. *E-Journal Pasca Unhas*. Available: [http://pasca.unhas.ac.id/jurnal/inc/downlaod.php?id\\_journal=416&linksx=93eafc626f1884778a6b787f77c1832b&ext=.pdf&hit=10](http://pasca.unhas.ac.id/jurnal/inc/downlaod.php?id_journal=416&linksx=93eafc626f1884778a6b787f77c1832b&ext=.pdf&hit=10).
- 20) Schiffman, Leon G. and Kanuk, Leslie L. (2008). *Consumer Behavior*. 7th edition. Jakarta: Index.
- 21) Suhendra, Bobby (2013). Factors Affecting Student Decisions In Choosing High School of Health Sciences (Stikes) In Pekanbaru. *Repository Unri*. Available: <Http://Repository.Unri.Ac.Id:80/Handle/123456789/1852>.
- 22) Tempo (2009, May). Lack of Interest, 30 Universities Banten Bankrupt. (Online). Available: <Http://Www.Tempo.Co/Read/News/2009/05/25/079177991/Kekurangan-Peminat-30-Perguruan-Tinggi-Banten-Bangkrut>.
- 23) Widikusyanto, Muhammad Johan and Satria, Join (2015). Factors Determining Higher Education Continuity in Banten. *Journal of Management Science*, Vol. 1, No. 1, 1-15.
- 24) Zeithaml, Valerie A., Mary Jo Bitner and Dwayne D. Gremier (2009). *Services Marketing: Integrating Customer Focus Across the Firm*. 5th edition. New York: McGraw-Hill.