

# Online Consumer Segmentation Study Based On Factors Affecting E-Commerce Selection

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# Online Consumer Segmentation Study Based On Factors Affecting E-Commerce Selection

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**Abstract.** Indonesia has considerable e-commerce growth potential supported by the increasing number of internet users. The rapid growth of e-commerce is characterized by the increasing number of e-commerce resulting in the increasingly intense competition among e-commerce. The purpose of this study is to do online buyer segmentation based on the attributes of the website. The survey using an online questionnaire was given to 338 online buyers in Indonesia. Factor analysis is used to verify the construct model used using Confirmatory Factor Analysis (CFA). Finally, segmentation analysis is applied to identify groups of respondents and create their profiles. Based on segmentation analysis, the study identified five segments, namely, assurance seekers, secure seekers, convenience seekers, convenience and secure seekers, and social connectivity seekers. Each of the five segments varies greatly in the selection of websites for purchases and describes the differences in their online shopping orientation. Companies need to develop a plan to consider the unique characteristics of the online market segment to attract and retain users. The findings of this study can be used as guidelines for the development of a multi-dimensional strategic framework by online retail companies.

**Keywords**— Indonesia; e-commerce; segment; CFA

## 1. Introduction

Indonesia has considerable e-commerce growth potential supported by the increasing number of consumer online. The research entitled "The Opportunity of Indonesia" initiated by TEMASEK and Google, discussed that the growth of Indonesian e-commerce has increased. In 2015, Indonesia has 18 million online consumers and is predicted to increase to 119 million online consumers by 2020. Along with the increasing number of consumer online, businessmen and traders have begun to switch from offline sales to online, especially through e-commerce platforms. Based on the results of the Economic Census in 2016, total e-commerce in Indonesia reached 26.2 million, an increase of about 17% during 2006 to 2016. This resulted in the increasingly intense competition between e-commerce.

E-commerce business models can generally be categorized in different models one of which is B2C (Business to Consumer). In B2C model, a customer can view a product and order the same. In this model, in addition to business organizations, online shopping websites are useful and are growing day by day at an unprecedented rate and the volume of transactions in e-marketplaces is expanding [1].

To attract the final consumer online in using e-commerce sites, e-commerce companies need special strategies. One strategy that can be used is to segment the final consumer online. Online consumer Segmentation is one of the strategies that can be utilized by the marketing department by grouping heterogeneous consumers (having many differences) into homogeneous groups (having many similarities) [2]. Segmentation is very important to do, this is in accordance with the statement of [3], stating that increasing competition, more informed and educated customers, and changing demands, urges companies to pay attention to segmentation issues. Segmentation can be the right tool for identifying unmet customer needs.

One final consumer online Segmentation that can be done is segmentation based on factors that influence the end consumer online in choosing an e-commerce by using the website attribute variable. This variable is used to determine the characteristics of each segment in choosing an e-commerce based on the attributes of an e-commerce website. From the results of existing research, consumer online Segmentation has been carried out. Some of them are consumer online Segmentation in India based on consumer shopping behavior [4], consumer online Segmentation based on web portals attributes [5] and Greenfield consumer online Segmentation based on shopping motivation and e-attribute store [6].

In addition to segmenting online consumers, another strategy that can be done is to learn and understand the factors that influence the end consumer online in choosing an e-commerce based on the attributes of the website. This strategy is needed to improve the quality of e-commerce so that it can attract end consumer online interest in using e-commerce.

Based on a number of things that have been described, final consumer online segmentation based on psychographic factors, namely the factors that influence the final consumer online in choosing e-commerce is the topic of this research. The purpose of this study is to do online buyer segmentation based on the attributes of the website. This research was conducted to provide information and advice to e-commerce business people in Indonesia to be able to compete and maintain their existence in the midst of increasingly e-commerce competition.

## 17 2. Literature Review

### 2.1. E-commerce 16

E-commerce (Electronic Commerce) is an activity of buying and selling goods and services as well as the transmission of funds or data through electronic networks, especially the internet. Types of e-commerce include B2B (Business-to-Business), B2C (Business-to-Consumer), C2B (Consumer-to-Business), C2C (Consumer-to-Consumer), G2G (Government-to-Government), G2B (Government-to-Business), G2C (Government-to-Consumer) and C2G (Consumer-to-Government) [7]. Business-to-Consumer (B2C) is e-commerce with transactions between business people / companies and final customers or in other words B2C is retail trade that occurs online. Whereas Consumer-to-Consumer (C2C) is an e-commerce with electronic transaction products and services between two final customers.

### 2.2. Factor Analysis

Factor analysis aims to minimize and rearrange very many variables into meaningful categories based on the same variance to get the underlying concepts and help understand interpretations [8]. There are two main factors analysis techniques, namely Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). CFA tries to confirm hypotheses and uses path analysis diagrams to represent variables and factors, while EFA tries to reduce data from origin variables to new variables or smaller factors and find relationships between new variables formed [9].

### 2.3. Segment Analysis

Segmentation analysis is an analysis used to group a number of objects into groups based on certain characteristics, so that members in the group have homogeneous characteristics and heterogeneous characteristics with other groups. The method in clustering is divided into 3, namely [10]:

#### a. Hierarchy Method

This method classifies two or more objects that have the closest similar. Then the process is continued with another object that has the second closest similarity. And so on until all objects enter the group. The hierarchy method can be used when there is no prior knowledge of how many groups should be formed. In the hierarchical method, there are two basic types:

- Agglomerative (Centering)  
In the agglomerative method, each object is considered as a group then similar groups are combined into a new group and so on. In agglomerative there are 5 methods, namely single linkage, complete linkage, average linkage, ward's method and centroid method.
  - Divisive (Spread)  
The divisive method starts from a large group consisting of all objects, then objects with the highest value of dissimilarity separated and so on.
- b. Non-Hierarchy Method  
Non-hierarchical methods begin by determining the number of groups desired and then the grouping process is done by placing objects into groups at once so that certain groups are formed. This method is commonly called k-means and is more suitable for large samples ( $n > 100$ ). Non-hierarchical methods have three approaches, namely sequential threshold, parallel threshold and optimization.
- c. Two Stage Method  
This method identifies groupings by executing pre-grouping first, then carrying out hierarchical methods. In the first step of the procedure, the data is pre-grouped into many small sub-clusters. Then, the sub-cluster is combined into the desired number of clusters. The two stage method can handle very large data and scale and ordinal data in the same model.

### 3. Research Method

#### 3.1. Data Collection Technique

Data collected is primary data obtained by survey techniques through online questionnaires. Sampling was done by the convenience sampling technique. The characteristics of respondents needed are Indonesian people aged at least 17 years and having made transactions at least 5 times on e-commerce types B2C and C2C. The questionnaire consists of 2 parts, namely the respondent's personal data and statements regarding the factors that influence the final consumer online in choosing e-commerce. The factors used are derived from previous research conducted by [11]. Respondents were asked to provide an assessment regarding the statement given in accordance with their opinions / perceptions using the five-point Likert scale. Based on research conducted by [11], this research uses the attributes of a website to determine the factors that influence online consumers in choosing e-commerce. In this study there are 7 variables, namely the design and quality of the website (DKW); security and privacy (KP); reliability and trust (KK); the popularity of the website (KW); accessibility (A); compatible with social media (KMS); search engine optimization (OMP).

Design and quality of the website (DKW) are divided into five indicators, namely visually attractive appearance (DKW1), user-friendly interface with easy navigation (DKW2), complete content and interactive mechanisms (DKW3), Regular information updates (DKW4), and Load all text and graphics quickly (DKW5). Security and privacy (KP) are divided into three indicators, namely provides error-free transactions (KP1), Protect personal information (KP2), Provides various payment mechanisms (KP3). Reality and trust (KK) are divided into three indicators, namely send orders to the right place and time (KK1), notify about order status (KK2), exchange and replacement policy (KK3). The popularity of the website (KW) is divided into five indicators, namely Offer good service (KW1), appropriate website image (KW2), offering quality products and services (KW3), the website offers original products (KW4), good relationship with users (KW5).

Accessibility (A) is divided into four indicators, namely, providing services 24 hours per day (A1), provide in-depth information about the product (A2), products can be ordered easily and quickly (A3), Product categorization for easy shopping (A4). Compatible with social media (KMS) is divided into four indicators, namely keep up with the latest trends (KMS1), interactive descriptions and reviews (KMS2), benefits of sweepstakes and promotions (KMS3), enables customers to share information (KMS4). Search engine optimization (OMP) is divided into three indicators, namely only provide relevant information (OMP1), minimum effort to find the product needed (OMP2), provides links related to products (OMP3).

### 3.2. Data Processing Techniques

This study uses factor analysis with the Confirmatory Factor Analysis (CFA) method using AMOS software and Segmentation analysis using the k-means method using SPSS software. The CFA method was chosen to provide valid information by testing or confirming a priori theory [12]. Segmentation analysis is done to obtain the final consumer Segment or online group based on the factors that influence the selection of e-commerce. The k-means method was chosen because it has high efficiency in the clustering process.

## 4. Results and Discussion

### 4.1. Normality and Outlier Test

Before carrying out factor analysis, a normality test was carried out to determine whether the data were normally distributed multivariate. The data are normally distributed multivariate if it has a critical ratio value between -2.58 to 2.58. From the results of AMOS software processing, the value of the critical ratio is 27,373, which means that the data is not normally multivariate. In order for data to be normally distributed multivariate, outlier elimination is carried out by deleting data that have a value of expensive d-squared distance > chi square value (52,260). From the results of AMOS software processing, there are 34 outlier data and eliminated so that the data is normally multivariate with a critical ratio of 2.57. In the next stage 304 data are used.

**Table 1.** Recapitulation of Stage I Factor Analysis

No.	Information			Estimate	C.R.	P	Loading Factor
1	DKW5	<---	DKW	1,000			0,555
2	DKW4	<---	DKW	1,039	6,973	***	0,536
3	DKW3	<---	DKW	0,931	7,411	***	0,647
4	DKW2	<---	DKW	1,020	7,355	***	0,648
5	DKW1	<---	DKW	1,062	6,377	***	0,517
6	KP3	<---	KP	1,000			0,703
7	KP2	<---	KP	1,055	10,430	***	0,719
8	KP1	<---	KP	1,000	6,942	***	0,458
9	KK3	<---	KK	1,000			0,661
10	KK2	<---	KK	0,796	10,247	***	0,680
11	KK1	<---	KK	0,714	10,204	***	0,706
12	KW5	<---	KW	1,000			0,651
13	KW4	<---	KW	0,895	8,016	***	0,510
14	KW3	<---	KW	0,867	11,195	***	0,754
15	KW2	<---	KW	0,846	7,966	***	0,512
16	KW1	<---	KW	0,900	10,557	***	0,706
17	A4	<---	A	1,000			0,691
18	A3	<---	A	1,031	12,152	***	0,776
19	A2	<---	A	1,161	12,373	***	0,784
20	A1	<---	A	1,111	8,427	***	0,521
21	KMS4	<---	KMS	1,000			0,590
22	KMS3	<---	KMS	0,918	6,635	***	0,465
23	KMS2	<---	KMS	0,925	8,681	***	0,735
24	KMS1	<---	KMS	0,893	6,976	***	0,504



25	OMP3	<---	OMP	1,000			0,561
26	OMP2	<---	OMP	1,004	8,921	***	0,804
27	OMP1	<---	OMP	1,091	8,001	***	0,609

#### 4.2. Factor Analysis

The model structure that contains 7 factors regarding the factors that influence online consumers in choosing e-commerce is tested for their strength and validity using CFA with Analysis of Moment Structures (AMOS) software. Evaluation is done to check the adequacy of the parameters and the overall model.

**Table 2.** Recapitulation of Stage II Factor Analysis

No.	Information			Estimate	C.R.	P	Loading Factor
1	DKW5	<---	DKW	1,000			0,555
2	DKW4	<---	DKW	1,036	6,964	***	0,535
3	DKW3	<---	DKW	0,934	7,410	***	0,650
4	DKW2	<---	DKW	1,016	7,338	***	0,646
5	DKW1	<---	DKW	1,055	6,347	***	0,514
6	KP3	<---	KP	1,000			0,715
7	KP2	<---	KP	0,998	10,429	***	0,692
8	KK3	<---	KK	1,000			0,657
9	KK2	<---	KK	0,802	10,168	***	0,681
10	KK1	<---	KK	0,722	10,163	***	0,708
11	KW5	<---	KW	1,000			0,651
12	KW4	<---	KW	0,892	7,991	***	0,508
13	KW3	<---	KW	0,866	11,186	***	0,754
14	KW2	<---	KW	0,844	7,942	***	0,511
15	KW1	<---	KW	0,903	10,592	***	0,708
16	A4	<---	A	1,000			0,691
17	A3	<---	A	1,032	12,208	***	0,777
18	A2	<---	A	1,160	12,388	***	0,783
19	A1	<---	A	1,108	8,423	***	0,520
20	KMS4	<---	KMS	1,000			0,573
21	KMS2	<---	KMS	0,972	8,359	***	0,750
22	KMS1	<---	KMS	0,884	6,644	***	0,484
23	OMP3	<---	OMP	1,000			0,560
24	OMP2	<---	OMP	1,008	8,895	***	0,806
25	OMP1	<---	OMP	1,089	7,971	***	0,607

##### 4.2.1. Factor Analysis: Stage 1

In stage I factor analysis, all indicators have a critical ratio of > 1.96 but there are 2 indicators that have a loading factor value of <0.5 (KP1 and KMS3) so that both indicators are eliminated and a new construct model is tested.

#### 4.2.2. Factor Analysis: Stage 2

In stage II factor analysis, all indicators have a critical ratio of > 1.96 but there are 1 indicator that has a loading factor value of <0.5 (KMS1) so that the indicator is eliminated and a new construct model is tested.

#### 4.2.3. Factor Analysis: Stage 3

In stage III factor analysis, all indicators have a critical value ratio of > 1.96 and all indicators have a value of loading factor > 0.5 (KP1 and KMS3). The Goodness-of-fit index used Root mean square error of approximation (RMSEA = 0.057), Goodness-of-fit (GFI = 0.889), Adjusted Goodness of Fit Index (AGFI = 0.856), Normed Fit Indices (NFI = 0, 85), Comparative Fit Index (CFI = 0.918), Incremental Fit Indices (IFI) and Tucker-Lewis Index (TLI = 0.902). Because the goodness-of-fit value is more than the recommended index, which is good fit if > 0.9 and marginal fit if > 0.8; the model can be said to be quite fit and validated.

**Table 3.** Recapitulation of Stage III Factor Analysis

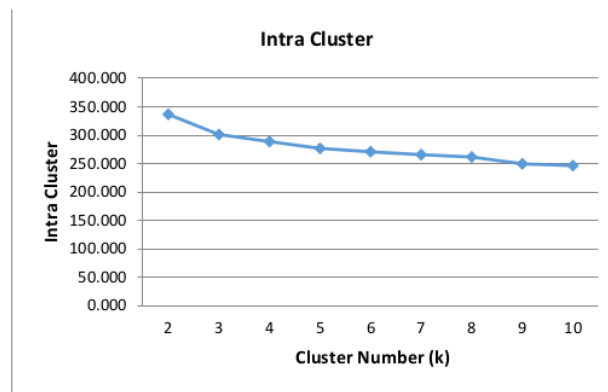
No.	Information	Estimate	C.R.	P	Loading Factor
1	DKW5 <--- DKW	1,000			0,555
2	DKW4 <--- DKW	1,029	6,926	***	0,531
3	DKW3 <--- DKW	0,937	7,410	***	0,652
4	DKW2 <--- DKW	1,021	7,345	***	0,649
5	DKW1 <--- DKW	1,052	6,328	***	0,512
6	KP3 <--- KP	1,000			0,713
7	KP2 <--- KP	1,002	10,413	***	0,694
8	KK3 <--- KK	1,000			0,656
9	KK2 <--- KK	0,803	10,162	***	0,681
10	KK1 <--- KK	0,723	10,182	***	0,709
11	KW5 <--- KW	1,000			0,651
12	KW4 <--- KW	0,888	7,953	***	0,506
13	KW3 <--- KW	0,867	11,192	***	0,754
14	KW2 <--- KW	0,844	7,943	***	0,511
15	KW1 <--- KW	0,905	10,608	***	0,709
16	A4 <--- A	1,000			0,688
17	A3 <--- A	1,038	12,169	***	0,778
18	A2 <--- A	1,167	12,354	***	0,785
19	A1 <--- A	1,109	8,386	***	0,519
20	KMS4 <--- KMS	1,000			0,561
21	KMS2 <--- KMS	0,962	8,154	***	0,726
22	OMP3 <--- OMP	1,000			0,556
23	OMP2 <--- OMP	1,020	8,876	***	0,810
24	OMP1 <--- OMP	1,093	7,923	***	0,605

#### 4.3. Segmentation Analysis

Segmentation analysis is used to Segment respondents based on their choice of website. Segmentation analysis in this study uses non-hierarchical techniques (k-means) by determining the optimum number of Segments using the elbow method. In the elbow method, the optimal number of Segments is determined by minimizing the total number of squares between points and centroids. Each data point is the distance between the data point and the center of mass of the corresponding Segment. Furthermore, the total number of squared distances between points and centroids is calculated.

**Table 4.** Recapitulation of Intra-Cluster Numbers

No.	k (Number of Segments)	Intra Cluster	% change
1	2	336,526	
2	3	301,082	10,53%
3	4	288,730	4,10%
4	5	276,638	4,19%
5	6	270,639	2,17%
6	7	265,604	1,86%
7	8	261,421	1,58%
8	9	249,444	1,58%
9	10	246,361	1,24%



**Figure 1.** Elbow Diagram

As can be seen in Figure 1, the total number of squared distances between the corresponding points and centroids (intra-cluster variations) decreases with increasing number of Segments. However, there is a drastic decrease from  $k = 2$  to  $k = 3$ . In other words, the total number of squared distances when  $k = 2$  and  $k = 3$  are 336,526, and 301,082, respectively, with a decrease of about 10.53%. This is an indication that there are several levels to group consumer online into several Segments.

However, outside  $k = 5$ , the total number of squares between the points and centroids that are suitable is not much different. When  $k = 5$  and  $k = 6$ , the total number of squared distances is 276,638 and 270,639, respectively. Therefore, there is not much variation between  $k = 5$  and  $k = 6$ . This gives an indication of the optimal number of Segments to classify online consumer as 5 Segments. So that the optimum number of Segments is 5 Segments.



**Table 5.** K-Means Analysis Results

Variable	Cluster					F-value	p
	1	2	3	4	5		
DKW	4,43	4,02	4,23	3,76	4,43	22,36	0,000
KP	4,04	4,28	4,13	3,64	4,48	23,33	0,000
KK	4,70	3,91	4,21	3,60	4,62	89,09	0,000
KW	3,98	3,94	4,13	3,54	4,44	38,03	0,000
A	3,97	3,90	4,10	3,40	4,54	67,78	0,000
KMS	3,61	3,71	4,22	3,45	4,75	112,09	0,000
OMP	4,27	3,79	4,18	3,57	4,67	54,19	0,000
Number of members	51	48	121	21	63		
Percentage of members	16,78%	15,79	39,80	6,91	20,72		

The formed Segment has its own characteristics according to the variables that affect the online consumer in choosing e-commerce and based on demographic factors. The following is an explanation of each Segment:

1. Segment 1

This Segment has 51 members. The demographic characteristics of respondents in this Segment were dominated by female respondents (64.71%), had the last high school education and were equivalent (47.06%), worked as students (50.00%), the majority were 17-24 years old (54.90%) and has an income of Rp. 2,600,000 - Rp. 6,000,000 (50.98%). Most of the respondents in this Segment came from Central Java (33.33%). Variables that have the highest ranking in influencing members in Segment 1 in choosing e-commerce is reliability and trustworthiness, website design and quality as well as search engine optimization. This shows that members in Segment 1 choose e-commerce that has the best ability in fulfilling services to consumers and e-commerce that has high integrity. Online consumers in this Segment tend to be careful and afraid of errors in the transaction process so that reliability and trust will greatly affect online consumers in this Segment to choose e-commerce. In addition, online consumers in this Segment also pay attention to the convenience of using e-commerce both from website design and the ease of searching for the desired product. This Segment is 'assurance seeker'. This Segment has characteristics similar to those of [5] namely the selection of e-commerce is influenced by personal guarantees.

2. Segment 2

This Segment has a total of 48 respondents. The demographic characteristics of respondents in this Segment were dominated by female respondents (62.50%), the majority were 17-24 years old (47.92%), single status (68.75%) and the majority were students (35.42 %). Most of the respondents in this Segment came from East Java (33.33%) with their last education, undergraduate (47.92%) and had an average income of IDR 2,600,000 - IDR 6,000,000 (58.33%). Variables that have the highest ranking in influencing members in Segment 2 in choosing e-commerce are security and privacy, website design and quality and the popularity of the website. The results of this study are consistent with the results of research conducted by [13] and [14] that security and privacy are important aspects of e-commerce selection. This shows that members in Segment 2 choose e-commerce that has the ability to prevent fraud. Members in this Segment tend to be very careful in providing information to e-commerce. In addition, online consumers in this Segment also pay close attention to the popularity of e-commerce because of the notion that popular e-commerce has good

quality. This Segment is a 'secure seeker'. This Segment has characteristics similar to those of [14] namely the selection of e-commerce is influenced by the security of personal and financial data.

3. Segment 3

This Segment has the most number of members, 121 respondents. The demographic characteristics of the respondents in this Segment were dominated by female respondents (58.68%), the majority were 17-24 years old (52.07%), single status (68.75%) and the majority were students (41.32 %). Most of the respondents in this Segment came from West Java (20.66%) with the last education of senior high school and the equivalent (42.15%). Variables that have the highest ranking in influencing members in Segment 3 in choosing e-commerce are a website design and quality, reliability and trust and compatibility with social media. These results are consistent with [15] which provide corroborating evidence that website design, in the form of usefulness and availability of information, is a key factor for e-commerce. This shows that members in Segment 3 choose e-commerce, which has an attractive interface appearance and complete content and information provided. Members in this Segment tend to find convenience in e-commerce use such as easy navigation and information retrieval. This Segment is 'convenience seeker'. This Segment has almost the same characteristics as the findings of [5], namely the selection of e-commerce is influenced by the convenience of transactions.

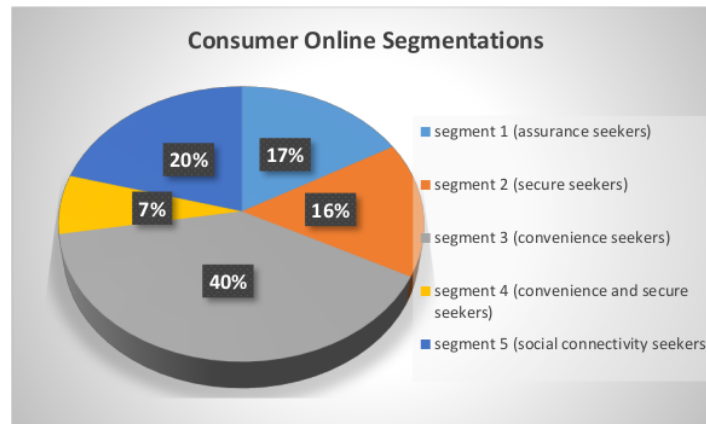
4. Segment 4

Segment 4 has the least number of members, namely 21 respondents. Demographic characteristics of respondents in this Segment were dominated by respondents of male sex (71.43%), the majority were 17-24 years old (61.90%), single status (71.43%). Respondents in this Segment mostly came from Central Java (23.81%), had the last education S1 (42.86%) and the majority were students (42.86%). Variables that have the highest ranking in influencing members in Segment 3 in choosing e-commerce are website quality design, security and privacy and reliability and trustworthiness. This shows that members in Segment 4 choose e-commerce that provides convenience in transactions and has the ability to prevent fraud. In addition, online consumers in this Segment are also very concerned about the reliability of e-commerce in providing services. This Segment is a combination of the previous 3 Segments with the name 'convenience and secure seeker'. This Segment has characteristics similar to those of [14], namely the selection of e-commerce is influenced by ease of use and security / privacy.

5. Segment 5

Segment 5 has 63 members. The demographic characteristics of respondents in this Segment were dominated by female respondents (57.14%), the majority were 17-24 years old (46.03%), single status (61.90%). Most of the respondents in this Segment came from Central Java (25.40%), worked as private employees (34.92%) and had an average income of Rp2,600,000-Rp6,000,000 (52.38%). Variables that have the highest ranking in influencing members in Segment 5 in choosing e-commerce are compatible with social media, reliability and trust, and search engine optimization. This shows that members in Segment 5 choose e-commerce that has a relationship with social media. Members in this Segment tend to look for e-commerce that can be directly connected with social media so as to facilitate online consumers in sharing information. This Segment is 'social connectivity seeker'. This Segment has different characteristics from previous studies.

Based on the results of Segmentation, there are differences with existing studies. This research provides 5 online segmentations as we can see at Picture 1. The research conducted by [5] has 4 online consumer Segments based on website attributes. The four Segments are traditional shopper, benefit seekers, convenience and assurance seekers and information and price seekers. Although the number of Segments formed is different, there are several Segments that have characteristic similarities, namely assurance seeker and convenience seeker. The difference between the results of this study and the research of [5] shows that there are differences in preferences between online consumer Indonesia and online consumer India.



**Figure 2.** Consumer Online Segmentations

#### 4.4. Analysis of factors affecting segmentation

All variables can distinguish Segments that are formed significantly (significant value  $<0.05$ ). The variable that has the largest Chi-Square value is the variable compatibility with social media of 112,093. A greater Chi-Square value indicates that the variable has a greater influence in distinguishing the formed Segment. While the variable that has the smallest Chi-Square value is the website quality design variable of 22.360, so that the website quality design variable has a smaller influence in distinguishing the formed Segment. Based on the crosstab test, all demographic factors have a significance value of  $>0.05$ , which means that all demographic factors are not significant in distinguishing consumer online Segments.

#### 5. Conclusion

In this study, there are 24 indicators that influence online consumers in choosing e-commerce. The twenty-four indicators relate to website attributes such as website design and quality, security and privacy, reliability and trust, website popularity, accessibility, compatibility with social media and search engine optimization. There are 5 consumer online segments that are formed based on the factors that influence the final consumer online in choosing an e-commerce by using the website attribute variable. The five Segments include assurance seekers, secure searchers, convenience seekers, convenience and secure searchers and social connectivity seekers. Based on demographic factors, all factors were not statistically significant in distinguishing formed Segments. While based on the ANOVA test, all variables are significant in distinguishing the formed Segments. Based on the results of Segmentation, this study can be used as a reference to improve the quality of e-commerce websites in order to attract and target the Indonesian consumer online Segment based on the factors that influence the end consumer online in choosing e-commerce.

Some recommendations that can be considered to improve the quality of web sites include Segment 1 (assurance seekers) can consider reliability and trust, Segment 2 (secure seekers) can consider security and privacy factors, Segment 3 (convenience seekers) can consider the design and quality factors web, Segment 4 (convenience and secure seekers) can consider web design and quality factors as well as security and privacy while Segment 5 (social connectivity seekers) can consider factors of compatibility with social media.

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