

FACTOR ANALYSIS OF ONLINE CLOTHES FASHION PURCHASE ON SOCIAL MEDIA INSTAGRAM

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ABSTRACT

An activity of online buying and selling products causes many online shops on social media. One of social media being used for buying and selling products in society is *Instagram*. Factors in influencing online purchasing need to be considered by online shops in order to meet the needs and desires of customers. This study aims to determine the factors that influence the online clothes fashion product purchasing on *Instagram* and other social media to find out the most dominant variables of each factor. This study employs a descriptive quantitative method and factor analysis in SPSS 20:00 in windows seven. The variables analyzed in this study is the impulse purchase orientation, attitude to online shopping, service quality, perceived risk, informativeness, online trust, specific holdup cost, perceived ease of use, and purchase intention. Data collection techniques are on students of Faculty of Economics and Business (FEB) and students of Faculty of Communication and Business (FKB) of Telkom University done by interviews and questionnaires. The sample in this study is using proportionate stratified random sampling of 100 people with a confidence level of 95% and an error of 5%. The results showed that the newly formed five factors that influence online purchase. The fifth factor is the perceived ease of use, online trust, informativeness, attitude to online shopping, and impulse purchase orientation. Online shopping businesses today are expected to pay attention to these factors in order to improve the service. Future studies are expected to use other variables such as enjoyment, perceived usefulness, and innovativeness while also able to use other analytical techniques such as Structural Equation Modelling (SEM).

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1. INTRODUCTION

In this modern era, internet is inevitably used by the society to access information. Internet service today has been existed in some regions with the big total of users. Based on the official site of Internet World Stats, it is said that from the internet user side, Indonesia is the eighth rank of all countries in 2012 (Internet World Stats). Ministry of Communication and Informatics says that Indonesian internet users in 2012 reach 63 million people and 95 percent of them use the internet to access the social media (*TI* newspaper, 2013). Social network in Indonesia is also significantly used by the users as a medium to sell their products as well as their product selling and buying activities. John Kerr, Head of Zeno Asia argues that the businessmen nowadays start to look at the social media to sell their products. According to John, there are 27% promotion media that use the social media, 21% use mobile marketing, 15% use television, 10% use advertising in networking, and the rest of it use other media (Andarningtyas, 2013). Shopping and advertising with using internet becomes a trend today. The innovation in softwares

enable the advertiser to determine the customer who will online purchase, to determine how many customers are, and what margins in each selling (Mullins and Walker 2013:356).

The phenomenon of online selling and buying occurs in some social media. In this research, the writer chooses Instagram as the research object since Instagram is one of big ten social media in the world in 2012 based on Silverpop survey result (Prihadi, 2012). The official site of SumAll which is an analysis agency in its newest year-end report in 2013 says that Instagram is the effective social media platform in increasing the business (SumAll, 2013). The phenomenon of online selling and buying is also experienced by the students of Economics and Business Faculty (FEB) as well as Communication and Business Faculty (FKB) of Telkom University. Instagram is accessed by many students as a medium to buy various types of goods like clothes, accessories, foods, shoes, and electronically stuffs. The Instagram application provides easiness for the students to do shopping in everywhere and everytime. The products they desire can be searched only by opening the explore feature and inputting the keyword of the products. The information related to the products which will be searched will be displayed in pictures as well as video. FEB and FKB students of Telkom University also use Instagram as a medium to sell. Instagram eases the students who have desire in business without spending money for the place rent. They just open the online shop by creating an account in Instagram and then posting the products they want to sell.

(Laohapensang, 2009) says that with the development of information search engine in internet since last 20 years, it cannot be denied that the online shopping system will be an alternative way in purchasing products. The online shopping system has undergone a development in relation to various things such as the service, efficiency, security, and popularity. However, the marketing of online media needs to be continuously fixed if we want to meet the change and development accordance with the needs and expectations of the customers. Hence, the research about factors which influence the students so that they do online clothes fashion shopping on Instagram as one of trending social media needs to be conducted. Based on the background explained before, this research aims to find out what factors influencing the purchase of online clothes fashion among students of Faculty of Economics and Business as well as Faculty of Communication and Business of Telkom University.

2. THEORETICAL FOUNDATION/RESEARCH METHODOLOGY

2.1 Marketing

Marketing is a social process which involves an activity that is needed to enable an individual and an organization to gain what they need and desire by exchanging with others and developing the relation of ongoing exchange (Mullins and Walker, 2013).

2.2. Mixed Marketing

Mixed marketing is a combination of controlled marketing variable which uses a manager to conduct a marketing strategy in pursuing the company goal in particular market target (Mullins and Walker, 2013). McCarthy classifies the marketing activities as the means of mixed marketing from four broad types, namely four P in marketing: product, price, place, and promotion.

2.3. Customers' Attitude

The American Marketing Association in (Peter and Olson, 2010) say that Customer Behaviour is a dynamic interaction between affection and cognition, behaviour, as well as environment where people do the aspects exchange in their lives. The online community and social network users are interesting for some people for some reasons. (Hawkins and Mothersbaugh, 2013) say that the reasons of social network usage by some people are:

1. The customers' usage in accessing social network is high and it increases in every time.
2. The majority of customer uses the network social sites to share information, including the information about a brand and a product.

3. The potency of customers' acquisition tends to be high.
4. The customer who interacts about a brand through social media are more potential to remember the brand, tends to share information related to the brand to others, tends to feel connected with the brand, and then tends to buy that brand.

Nine Attributes which Influence Online Buying

Based on some previous studies, (Park and Kim, 2003), (Broekhuizen, 2006), (Bigne Alcan iz, et al, 2008), (Lin an Sun, 2009), (Lim, 2013), (Thamizhvanan & Xavier, 2013), there are some variables which influence the online buying. Nine of them are Impulse Purchase Orientation, Attitude to Online Shopping, Service Quality, Perceived Risk, Informativeness, Online Trust, Specific Holdup Cost, Perceived Ease of Used, and Purchase Intention.

2.2 Framework

In this research, the writer used nine variables which influence online purchasing, namely impulse purchase orientation, attitude to online shopping, service quality, perceived risk, informativeness, online trust, specific holdup cost, perceived ease of used, purchase intention.

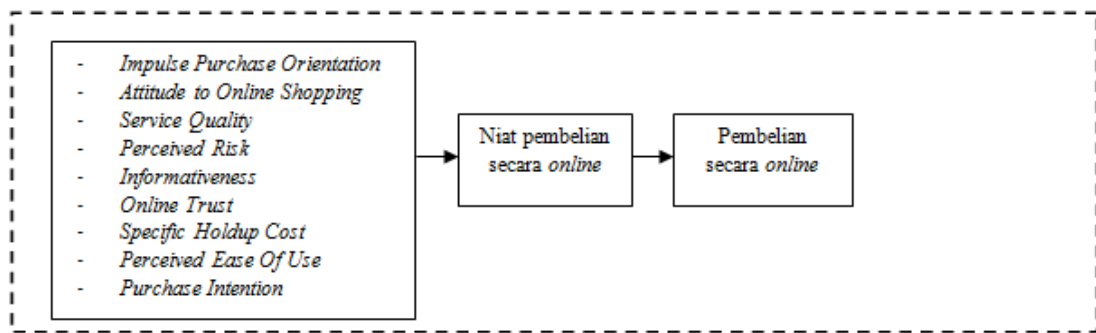


Figure 1: Framework

2.3 Data and Data Analysis

This research employed descriptive research using quantitative approach. The data are from the questionnaires. The respondents of this research are Instagram users among the students of Faculty of Economics and Business and Faculty Communication and Business of Telkom University. The data are from 100 respondents. The data are analysed by using factor analysis.

3. Discussion

Pre-test of the questionnaire are conducted. The result is showed in Table 1.1.

Table 1: Data Reliability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.936	.937	26

Since the result of reliability shows 0,937, so the items on this research are reliable with the value > 0.6 (Sugiyonno 2011:184)^[15] so that the questionnaires can be used in this research. Table 2 presents the descriptive analysis from the sample of the research.

Table 2: Descriptive Analysis

Item	Category	Sample Size	Percentage (%)
Amount of time in online purchasing	> 2 times	44	44%
	2 times	31	31%
	1 time	25	25%
Sex	Female	89	89%
	Male	11	11%
Age	18-20 years old	42	42%
	21-23 years old	58	58%
	24 years old	0	0%
Study Program	Business Administration	23	23%
	Accounting	19	19%
	Communication	20	20%
	MBTI	35	35%
	International MBTI	3	3%
Income per month	< Rp. 1,000,000	18	18%
	Rp. 1,000,000 until. Rp. 3,000,000	76	76%
	> Rp. 3,000,000	6	6%
Pengeluaran Untuk Berbelanja <i>Online</i> Perbulan	< Rp. 100,000	25	25%
	Rp. 100000 unti Rp. 300,000	62	62%
	> Rp. 300,000	13	13%

The descriptive analysis in this reseach is conducted to find out the percentage of each variable which is the most dominant in accordance with the repsondent based on the answers of the quisionnaire. The grouping category is divided into four which is conducted with using the same range.

Table 3: Percentage Grouping Category

Range Value	Category
25% - 43,75%	Very bad
43,75% - 62,5%	Bad
62,5% - 81,25%	Good
81,25% - 100%	Very good

Table 4: Respondent Respons

Variable	Average of Total Score Percentage (%)	Category Description
Impuls Purchase Orientation	70,08%	Good
Attitude to Online Shopping	69,25%	Good
Variable	Average of Total Score Percentage (%)	Category Description
Service Quality	64,5%	Good
Perceived Risk	67,37%	Good
Informativeness	78,08%	Good
Online Trust	68,25%	Good
Specific Holdup Cost	73,5%	Good
Perceived Ease of Use	77,8%	Good
Purchase Intention	71,5%	Good

3.1 Factor Analysis

The result of factor analysis done on the fifth data processing reaches 0,763 ($0,763 > 0,5$) of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy number and 0.000 ($0.000 < 0.05$) of the significance

number so that the existing indicator can be further analysed. The MSA number is around zero until one. A variable can be predicted and further analysed if it has >0.5 of MSA (Santoso 2010:66)^[14]. The result of anti-image correlation on the table of Anti Image Matrices indicates that all analysed indicators have >0.5 MSA value so the further analysis can be conducted.

Table 5: KMO and Bartlett's Test of Sphericity (Fifth Test)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.763
Bartlett's Test of Sphericity	Approx. Chi-Square	1300.398
	Df	231
	Sig.	.000

On the first KMO and Bartlett's Test of Sphericity Test, the analysed indicator amount is 26. After the fifth test is conducted, it remains 22 indicators since there are four issued indicators on the previous test, they are IPO1, SQ9, SQ7, and IPO2.

Table 6: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	8.176	37.165	37.165	8.176	37.165
2	2.085	9.477	46.642	2.085	9.477	46.642
3	1.588	7.216	53.858	1.588	7.216	53.858
4	1.473	6.696	60.554	1.473	6.696	60.554
5	1.249	5.679	66.233	1.249	5.679	66.233
6	.975	4.434	70.667			
7	.850	3.866	74.533			
8	.838	3.808	78.341			
9	.718	3.264	81.605			
10	.656	2.982	84.587			
11	.596	2.710	87.297			
12	.479	2.178	89.475			
13	.449	2.041	91.516			
14	.342	1.553	93.069			
15	.303	1.378	94.447			
16	.284	1.289	95.736			
17	.238	1.081	96.817			
18	.201	.914	97.732			
19	.170	.775	98.506			
20	.147	.666	99.172			
21	.097	.441	99.613			

22	.085	.387	100.000			
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Extraction Method: Principal Component Analysis.

The SPP processing result on the table 6 shows that if 22 variants from nine variables are summarised in a single factor so the variants which can be explained by that single factor will be $8.176/22 \times 100\% = 37.165\%$. Hence, a single factor can explain 37.165% from the variability of the nine variables. If the nine variables are extracted into five factors, the five total factors can explain the variability of the nine original variables, which are $37,165\% + 9,477\% + 7,216\% + 6,696\% + 5,679\% = 66.233\%$. Eigen values show the relative importance of each factor in counting the analysed variants (Santoso 2010:83)^[14]. The criteria in determining the formed factor is by using the amounts of eigenvalue that are worth more than one. The eigen value which is less than one can not be used as the formed factor. In the table 6, it is obtained that the eigenvalues which is still worth more than one exists in the first until fifth factor. It can be concluded that it can form five new factors.

Table 7: Rotated Component Matrix

Rotated Component Matrix^a

	Component				
	1	2	3	4	5
IPO3	.192	-.021	.224	.078	.734
AOS4	.598	.260	-.048	.534	.182
AOS5	.007	.161	.446	.687	-.235
AOS6	.720	.148	.345	.050	-.217
SQ8	.320	.560	.057	.230	-.359
PR10	.492	.448	.089	.198	.222
PR11	.148	.488	-.031	-.112	.402
I12	.423	.170	.592	.282	.062
I13	.182	.098	.796	.346	.096
I14	.193	.174	.792	.208	.121
OT15	.158	.665	.031	.428	.127
OT16	.003	.800	.230	.162	.148
OT17	.130	.787	.193	-.154	-.042
SHC18	.385	-.143	.278	.553	.098
SHC19	-.019	.206	.242	.421	.520
SHC20	.117	.503	.117	.270	.534
EOU2 1	.720	-.066	.365	-.194	.130
EOU2 2	.216	.137	.709	.009	.333
EOU2 3	.110	.110	.209	.672	.314
PI24	.709	.287	.121	.215	.363
PI25	.563	.266	.162	.365	.120
PI26	.508	.118	.392	.419	.388

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 18 iterations.

The result from the data processing in the table 7 shows there are 22 analysed indicators but not all indicators give the contribution on the five newly formed factors. There are 17 indicators which give the contribution on the five newly formed factors and five other indicators do not have contribution since they have <0.55 factor loading. The indicators which have <0.55 factor loading are PR10 for 0.492, PR11 for 0.4888, SHC19 for 0.520, SHC20 for 0.534, and PI26 for 0.508.

Based on the analysis factor, there are five newly formed factors within new indicators. The grouping is done in accordance with the factor loading value. Factor loading is the correlation amount between one variable and a newly formed factor (Santoso 2010:85)^[14]. These are the newly formed factors:

1. Perceived Ease of Use. The first factor has 8.176 Eigen value and 37.165% contribution in percentage. This factor covers five variables: the customers can visit the online shops easily (0.720), the customers need online shop to buy products they need (0.720), the customers prefer to choose shopping in inline shop (0.709), the customers feel comfortable when they are purchasing in online shops (0.598), and the customers will recommend others to do online shopping (0.563). These factors are called Perceived Ease of Use since the largest factor loading is from the Perceived Ease of Use factor, which is the customers can visit the online shop easily on media social *Instagram* (0.720).
2. Online Trust. The second factor has 2.085 Eigen value and 9.477% contribution in percentage. This factor covers four variables: the online shops keep personal data safely (0.787), the online shops have a good reputation (0.665), and the online shops consistently deliver on the promise (0.560). These factors are called Online Trust since the largest factor loading is from the Online Trust variable which is the online shops on social media *Instagram* are trusted to sell with honest (0.800).
3. Informativeness. The third factor has 1.5888 Eigen value and 7.216% contribution in percentage. This factor covers four variables: the customers can access information they need (0.769), the customers can plan the purchases with the existing information on the online shop (0.792), the customers can easily find the products they desire on the online shops (0.709), and the customers can access the newest information about the available products on the online shops (0.592). These factors are called Informativeness which is the customers can find the information about the clothes they need (0.796).
4. Online Attitude to Online Shopping. The fourth factor has 1.473 Eigen value and 6.696% contribution in percentage. This factor covers three variables: the customers think that online clothes shopping on social media *Instagram* is very interesting (0.687), the payment is easy on online shops (0.672), and the customers are accustomed to visit online shops (0.553). These factors are called Online Attitude to Online Shopping since the largest factor loading is from Attitude to Online Shopping variable which is the customers think that online clothes shoppings on social media *Instagram* are very interesting (0.687).
5. Impuls Purchase Orientation. The fifth factor has 1.249 Eigen value and 5.679% contribution in percentage. This factor is called Impuls Purchase Orientation since it only covers one variable so that the largest factor loading is when the customers visit the online shop which sells clothes on social media *Instagram*, there is possibility that they will do the purchasing (0.734).

4. Conclusion

Result of this research shows that there are five newly formed factors. Those factors have the addition and subtraction of indicators which are from the different variables. The five newly formed factors are:

1. Perceived Ease Of Use,
2. Online Trust,
3. Informativeness,
4. Attitude To Online Shopping,
5. Impuls Purchase Orientation.

The businessmen today are expected to concern those factors so that they can increase the service quality. The further research is expected to use other variables such as enjoyment, perceived usefulness, and innovativeness or to use another analysis technique like Structural Modelling (SEM).

REFERENCES

Andarningtyas, N. (2013). *Media sosial kian penting dalam pemasaran*. [Online]. <http://www.antaranews.com/berita/379660/media-sosial-kian-penting-dalam-pemasaran> [7 Desember 2013]

Bigne-Alcaniz, E., Ruiz-Mafe, C., Alda, J., & ManzanodanSanz-Blas, S. (2008). Influence of online shopping information dependency and innovativeness on internet shopping adoption. *Online Information Review*, 32(5), 648-667. Emerald Group Publishing Limited.

Broekhuizen, T. (2006). *Understanding Channel Purchase Intentions: Measuring Online and Offline Shopping Value Perceptions*. 1-256. Labyrinth Publications.

Harian TI. (2013). *Kemenkominfo: 95 Persen Akses Internet Orang Indonesia untuk Jejaring Sosial*. [Online]. <http://harianti.com/kemenkominfo-95-persen-akses-internet-orang-indonesia-untuk-jejaring-sosial/> [7 Desember 2013]

Hawkins, D.I. & Mothersbaugh, D.L. (2013). *Consumer Behavior: Building Marketing Strategy Twelfth Edition*. McGraw-Hill International Edition.

Internet World Stats. (2012). *Top 20 Countries With The Highest Number Of Internet Users*. [Online]. <http://www.internetworldstats.com/top20.htm> [10 Desember 2013]

Laohapensang, O. (2009). *Factors influencing internet shopping behaviour: a survey of consumers in Thailand*. *Journal of Fashion Marketing and Management*, 13(4), 501-513. Emerald Group Publishing Limited.

Lim, W.M. (2013). *Toward a Theory of Online Buyer Behavior Using Structural Equation Modeling*. *Modern Applied Science*, 7(10), 34-41. Canadian Center of Science and Education.

Lin, G.T.R. & Sun, C. (2009). *Factors influencing satisfaction and loyalty in online shopping: an integrated model*. *Online Information Review*, 33(3), 458-475. Emerald Group Publishing Limited.

Mullins, J.W. & Walker, O.C.Jr. (2013). *Marketing Management A Strategic Decision Making Approach*. McGraw Hill.

Park, C., & Kim, Y. (2003). *Identifying key factors affecting consumer purchase behavior in an online shopping context*. *International Journal of Retail and Distribution Management*, 31(1), 16-29. Emerald International Journal.

Peter, J.P. & Olson, J.C. (2010). *Consumer Behavior and Marketing Strategy*, 9th Edition. McGraw Hill.

Prihadi, Susetyo D. (2012). *Ini Dia 20 Jejaring Sosial Terbesar di Dunia*. [Online]. <http://inet.detik.com/read/2012/11/27/103748/2102315/398/ini-dia-20-jejaring-sosial-terbesar-di-dunia> [8 Desember 2013]

Santoso, Singgih. (2012). *Aplikasi SPSS pada Statistik Multivariat*. Jakarta: PT. Elex Media Komputindo.

Sugiyono. (2011). *Metode Penelitian Kuantitatif, Kualitatif, Dan Kombinasi (Mixed Methods)*. Bandung: ALFABETA.

SumAll. (2013). *For your entire business view*. [Online]. <https://sumall.com/> [2 Januari 2014]

Thamizhvanan, A., & Xavier, M.J. (2013). *Determinants of customers' online purchase intention: An empirical study in India*. *Journal of Indian Business Research*, 5(1), 17-32. Emerald Group Publishing Limited.