

Student Consumptive Behavior Based on Intensity of Using Non-Cash Transactions

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Abstract-This study aims to measure student consumption behavior by shopping scores. Researchers also looked at the relationship between the intensity of the use of banking services and electronic money on shopping behavior. Data was collected from 487 students at the University of Indonesia from various majors. The data that has been filled is analyzed by converting a Likert value to a score of 0-100. Furthermore, this study uses descriptive analysis, crosstables, and One-Way Anova. Based on the results, the average UI students shopping scores were 66.48, including the medium (33.34-66.66). There is a very significant difference between men's and women's shopping scores (p -value = 0.0000363). The Women's shopping scores (67.79) are higher by 3.43 points than men's shopping scores (64.36). Women's shopping scores are in the high category, while men's shopping scores are in the moderate category. High shopping behavior is also influenced by the intensity of the use of banking services and electronic money. Based on the one-way ANOVA test, there is a very significant influence on the intensity of the use of banking services ($p = 0,000$) and the use of electronic money ($p = 0,000$) on shopping scores. Students who have electronic money have a trend to shop compared to students who do not have electronic money. Likewise, students who frequently use banking services (ATMs, debit cards, credit cards) tend to prefer shopping to students who have never or rarely used them.

Index Terms-consumption, shopping, electronic money, and banking services

I. INTRODUCTION

Consumptive behavior is always interesting to research, this is because excessive consumption will negatively impact financial management in a person. Consumption includes the purchase of goods or services used to meet the needs of life. Nowadays, consumer behavior is not only for everyday needs but more to life satisfaction. The same has been examined by Tama (2014) which states the understanding of consumption as expenditure for obtaining goods and services to satisfy or meet the needs.

Goods and services are obtained through purchase which is one of the activities in the transaction. In his research, Amarjit Gill and Charul (2012), evaluating the use of money for daily transactions in meeting needs can be done by spending money to get services or consumer goods. In this era, there was a shift (shift) in people's habits in the transaction. People began to recognize tools for payment other than banknotes/coins.

In general, people in Indonesia conduct transactions in 2 ways, namely by cash and non-cash. Before there is a non-cash transaction, according to Gosal and Linawati (2018), if one is going to make a large transaction, one must carry a large container. This is of course very different from the transactions that are happening today. Transaction activities have become very easy with the help of technology. Technological developments create a more practical method of payment, in the transaction only need to use a cell phone or a card.

Innovation in the digital era encourages the financial industry to participate in the release of products that can be taken by the community. According to Candrawati (2014), the non-cash payment tools used by the public are generally issued by banks and other institutions. The payment instrument issued by the bank is a credit card (*debit card*). While the instrument of payment issued by another institution is called the *Stored Value Card*, this card is known as *Electronic Money* (e-money). In its use e-money is used for

micro Transaction ie Transaction in small quantities. This is because there is no protection access to e-money owners. Credit/debit card owner security is more secure, so they can be used for transactions in large quantities securely.

The government likes to make campaigners about the non-cash transaction. The sharing of research has been researched about the readiness of the community using a non-cash payment tool including research by tazkiyyaturrohmah (2018) and Jati (2015). The Government forms a non-cash society or often known as the term *cashless Society*. This Movement is effective for encouraging the economy of a more Efficient country (Tee, 2017). The Socialization and campaign of electronic money-based card technology is a policy issued by Bank Indonesia (BI) since the year 2006. On 14 August 2014, the government socialized the National Noncash Movement (GNNT) which aims to use transactions electronically and minimize cash usage.

GNNT is widely responded positively by the Indonesian community, including students. GNNT also triggered a change in the consumer's twists among students. Octavian's research (2016) stated that students at Surabaya State University would prefer to shop online with a CASH transfer payment instrument. Any change in the accounting behavior of the development of technology has always had a positive and negative impact, a study discussing the negative effects of this technology include Sham (2015). In his research, Sham stated that teenagers are still more likely to be consumptive with irrational reasons just because they are affected by advertising, friend calls, massive discounts, etc. Likewise, the first semester students around 18-19 years old are still very prone to consumptive behavior.

It is also the background of this research, about the concern of changes in student behavior that is excessive consumption. However, shopping activities as part of meeting needs and satisfaction, as well as technological advances that lead to practicality are two complementary things. Another study by Ramadani (2016) states that the higher the use of technology for transactions the higher the consumption expenditure of students. Excessive consumption among students will have an impact on lifestyle changes and wasteful spending. Based on this background, the author will combine research between consumptive behavior and the use of electronic transactions among students. Thus, it is hoped that this research will contribute both in practice or theory about consumer behavior and the use of non-cash transactions.

II. MATERIALS AND METHODS

Data in research is the primary data that is obtained directly by spreading the questionnaire to the student who is the sample. The student age range sampled is 17-19 years old (first-rate students). The variables used include two latent variables i.e. the use of banking/electronic money and shopping services, in which each indicator can be seen in table 1. Respondents were asked to fill the questionnaire that was disseminated with the chosen category never (1), rarely (2), and often (3).

Table 1. Latent variables and indicators

Latent variables	Indicators	Based on the data source from Forlap Dikti (https://forlap.ristekdikti.go.id), the number of students in the year 2018/2019 active at 46,378 students. Draw samples using
Non-Cash transactions	I transact using banking services (ATM, debit card, credit card, mobile payment, etc.)	
	I have money in my electronic Bank (like OVO, E-money, etc.)	
	I compare prices between stores/supermarkets/supermarkets before making a purchase	
Shopping	I bought the product due to the discount	
	I bought the goods that fit the needs	
	I bought the item because it affected ads	
	I bought the item because of the desire spontaneously	
	I bought items because of my friend's influence	

simple random methods. Based on the calculation results of the sample count with the formula Slovin, the margin of error 5%, the number of samples produced is 397 respondents. In this research, the questionnaire was distributed to 487 students, so that it was following the minimum sample based on the formula Slovin.

The Data that has been collected is tested for validity and reliability. Validity testing with Pearson correlation to equation 1. The indicator is valid if Significant is correlated with the total score indicator. Equation 2 is the formula for reliability testing.

Statistics of reliability test using alpha Conbrach. If the value of Cronbach Alpha > 0.60, then it can be said to be reliable (Straub, 2004). Subsequent testing with descriptive statistics: Bar charts, pie charts, and cross tables to see the characteristics of respondents. This research uses the 3 initial hypotheses to be tested.

Hypothesis 1

A one-way T-test statistic is used to test the hypothesis that women have a higher shopping score than men. These test statistics are used in two unpaired (independent) populations assuming the same variance/variety.

H₀: Men have the same shopping score with less than women's shopping scores

H₁: Women have higher shopping scores than men

Hypothesis 2

Test One Way Anova/Variagated One way analysis is used to test if there is a difference between students who never, rarely, and often use banking services against the shopping score.

H₀: Each student group's shopping score is equal

H₁: At least one group of students who have different shopping scores.

Hypothesis 3

The 3rd hypothesis is the use of electronic money. Anova One way is also used to test if there is a difference between students who do not have e-money, rarely use, and often use e-money towards shopping scores.

H₀: Each student group's shopping score is equal

H₁: At least one group of students has different shopping scores.

III. RESULTS AND DISCUSSION

Validity and reliability

Validity testing is performed in each of the latent variables used in this study. Table 2 shows the outcome of the validity test the second indicator is valid. Reliability testing with Conbrach's Alpha, $\alpha^* = 0.805 > 0.6$, it can be inferred.

Table 2. Non-Cash transaction variable validity test

Indicators	R	P-value	Validity
X ₁	0869	0.000* *	Valid
X ₂	0651	0.000* *	Valid

Significant at Alpha 0.01

The validity test for the latent shopping construct is shown in table 3. Based on the test results All indicators are declared valid. Conbrach's Alpha value, $\alpha^* = 0.663 > 0.6$, it can be said that it is reliable. The tested variable indicator has qualified validity and reliability so that it can be used for further analysis.

Table 3. Variable Validity test Shopping

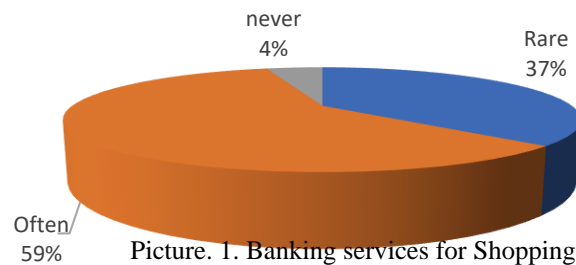
Indicators	R-Value	P-value	Validity
Y ₁	0.569	0.000* *	Valid
Y ₂	0.439	0.000* *	Valid
Y ₃	0544	0.000* *	Valid
Y ₄	0400	0.000* *	Valid
Y ₅	0466	0.000* *	Valid
Y ₆	0446	0.000* *	Valid

Significant at Alpha 0.01

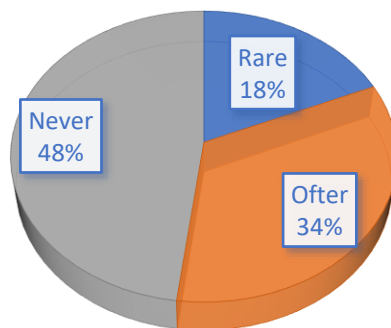
Characteristics of respondents

The study sampled 486 students with a proportion of male 186 men and 302 women. Respondents most female gender 62%, the remaining 38% male gender respondents. Based on the results of the interview monthly expenditure of students grouped in category < Rp 1 million, Rp 1 million-Rp 2 million, Rp 2 million-Rp 3 million, Rp. 4.000.00-Rp. 5 million, and > Rp 5 million. For 43% of students, spending money on spending between Rp. 1 million-Rp. 2.000.000, this shopping includes food and non-food shopping for a month but excluding the rent of residence

The use of banking services such as debit cards, credit cards, etc for student spending is categorized into 3 categories i.e. never, rarely, and often use them. The size of the three categories is listed in Picture 1, based on the research results of only 4% of students who have not used banking services for shopping transactions. A total of 59% of students stated often using the service. This suggests that the use of non-cash transactions is reasonably mimic by the students for shopping.



In general female sorority often conducts banking services by as much as 60% of students, only 4% of the coed who never do shopping with debit and credit cards. Likewise, male students say often doing shopping with the service is 57%, while 38% stated rarely and 5% never use bank transactions for shopping. The use of electronic money (e-money) as a substitute for money is very demanded by students, but not as much as the use of banking services. 48% of students stated never to use E-money for shopping. A total of 34% of respondents stated often using E-money for shopping, and as much as 18% expressed infrequent use (Pic. 2).



Based on gender, as many as 45% of students stated never to use E-money, while the coed was 50%. The presentation often uses E-money, as many as 36% of female sorority states often use E-money for shopping purposes, while students are 30%. The use of the E-money among new students is still a little compared to the credit/Debit card for shopping purposes, this is in line with the research by Pranoto (2019). It is very natural because people in general and students in this research first know the debit/credit card compared to E-money.

The student spending behavior is listed in table 4. Based on the results of a Survey of 35.25% of students said they often buy products due to spontaneous. It can be interpreted that the coed tends to buy something without careful consideration, not according to the need but rather to the satisfaction gained. But the behavior of the sorority expenditure is still in reasonable terms, it is shown from 33.40% of the coed who started buying items that fit the needs. Male students as much as 18.44% also stated that they often buy spontaneously. Male student spending behavior is also only 3.89% which stated not to buy goods that fit the needs.

Table 4. Student’s Shopping Behavior

Indicators	Never		Rarely		Often	
	Women	Male	Women	Male	Women	Male
I compare prices between stores/supermarkets/supermarkets before making a purchase	6.35%	5.94%	25.82%	19.47%	29.71%	12.70%
I bought the product due to the discount	13.93%	11.48%	34.02%	19.88%	13.93%	6.76%
I bought the goods that fit the needs	5.74%	3.89%	22.75%	15.98%	33.40%	18.24%
I bought the item because it affected ads	41.39%	21.52%	16.80%	13.73%	3.69%	2.87%
I bought the item because of the desire spontaneously	6.97%	8.81%	19.67%	10.86%	35.25%	18.44%
I bought items because of my friend's influence	30.53%	18.24%	6.15%	4.92%	25.20%	14.96%

Shopping score

The shopping score reflects student spending behavior. The shopping score is calculated from the indicators on the shopping variable. Student spending categories can be categorized under table 5. The shopping score ranges from 0 to 100. Overall the student shopping score of UI is 66.48, which belongs to the medium category. For this type of color, women have a higher shopping score of 3.43 points than the male shopping score (64.36). It is following Seock and Bailey's Research (2008), which states that women tend to prefer shopping than men. Of 44.47% of UI, students have a high shopping score category. Only 0.41% of students have a low shopping score listed in Table 5.

Table 5. Shopping score Category

Shopping score	Category	Student percentage
0-33.33	Low	0.41%
33.34-66.66	Medium	55.12%
66.67 -100	High	44.47%

To measure statistically, the 1 hypothesis test of women's shopping score is higher than that of males, so the T independent one-way test is conducted. The test result is in table 4, value $p = 0.000181 < 0.001$ so it can be concluded that women's shopping score is higher against the male spending score with a confidence rate of 99%.

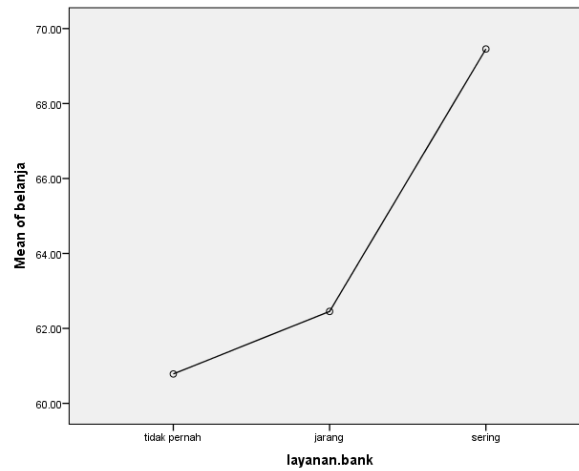
Table 6. Test T two independent one-way populations

	Male	Women
Average	64.36	67.79
Variety	136.45	85.88
Number of respondents	186	302
Combined Range	105.13	
<i>Hypothesized Mean Difference</i>	0	
Free degrees	486	
T Stats	-3.59	
P (T ≤ T)	0.00018	
T Critical point	1.65	

Influence of Intensity Banking services against shopping score

The second hypothesis in this study was the use of banking services impacting student spending. In other words, more and more often use banking services, students will be more likely to have behavior that likes to shop. Picture 8 shows a tendency relationship between

students who have never used banking services having a score of 60.7845 (category: Moderate). Students who rarely use banking services have a 62.4537 shopping score (Category: moderate). The high category is obtained by students who often use the service with a score of 69.4550.



Picture 8. Shopping score based on the intensity of use of service

One-way ANOVA test with Test F, it can be noted that statistic Test F 32,294 and the value P = 0.000. It can be concluded that at least one student group (never, rarely, often) has a significantly different shopping score with another student group. In other words, there is a significant difference between the willingness of shopping services to the student spending score with a 99% confidence rate.

Table 7. One-way Anova test

	Number of squares	Df	Central square	F	Q
Inter Group	6,163,788	2	3,081,894	32,294	.000
In Group	46,284,667	485	95,432		
Total	52,448,454	487			

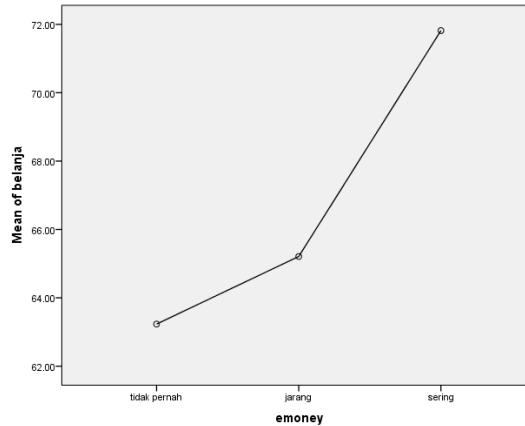
To measure the intensity of the use of banking services which give different influence, then conducted an advanced test with *multiple comparison Tukey*. Table 3 shows the results of the Tukey test. Based on these results, it can be noted that students who are never and students who rarely use banking services do not differ significantly, with the value P = 0.730. It can be interpreted that both groups of students have the same shopping behavior. The different things are shown against the student group's intensity of use of banking services often, they have a different average shopping score that is very significant towards the other student groups (never and varying rarely), with a confidence rate of 99%.

Table 8. Multiple comparison Tukey

(I) service. Bank	(J). Bank services	Sig.
Never	Rarely	.730
	Often	.000
Rarely	Never	.730
	Often	.000
Often	Never	.000
	Rarely	.000

Influence of Banking services Intensity against shopping score

The use of E-money among students has also become common in UI. This research, wanting to know the relationship between the use of E-money for shopping with student spending scores. Some patterns tend to rise in student groups who have never used e-money and students who often use e-money towards their spending scores. Students who often use E-money have a much higher score, 8 points than students who rarely make e-money. This suggests that current shopping phenomena have been able to use E-money as a substitute for cash among UI students. Students who have never used E-money have a 63,231, shopping score (moderate). The same thing on students rarely to match E-money has a score of 65.21 (moderate). The student groups who often use E-money have a score of 71.82 (high).



Picture 9. Student spending score based on E-money usage intensity

In a one-way ANOVA test with an F test, it can be noted that the test statistics F 39,125 and the value P = 0.000. It is, it can be concluded that a minimum of one student group (never, rarely, often) who uses E-money has a significantly different shopping score with another student group. In other words, a significant difference between the E-money is the intensity of the management of the student spending score with a 99% confidence rate.

Table 9. One way Anova test

	Number of squares	df	Central square	F	Q
Intergroup	7,286,380	2	3,643,190	39,125	.000
In the group	45,162,074	485	93,118		
Total	52,448,454	487			

Advanced Test *Multiple comparison Tukey* to find out which group gave the average score different from the other group. Based on these results, it can be known that students who have never and students who rarely use e-money do not differ significantly, with the value P = 0.225 in Table 10. It can be interpreted that both groups of students have the same shopping behavior. The different things are shown against the student's group with the intensity of often using e-money, they have a different average shopping score that is very significant towards another student group (never and intensity is rare), with a confidence rate of 99%. In other words, based on the intensity of e-money towards shopping scores can be divided into 2 groups i.e. the first group consisting of students who never and rarely use E-money, the second group is a student who often uses e-money for shopping.

Table 10. *Multiple comparison Tukey*

(I) Emoney	(J) Money	Sig.
Never	Rarely	.225
	Often	.000

Rarely	Never	.225
	Often	.000
Often	Never	.000
	Rarely	.000

IV. Conclusions and Implications

UI student's shopping behavior is still in the medium category. The behavior between women and men in shopping is very different. Women have higher spending scores than men. The use of cash to non-cash transactions is also favored by a group of student UI. Student behavior that often uses non-cash Transaction also has a high shopping score. The shopping behavior has a significant relationship with the intensity of non-cash transaction usage. Students who often use the noncash transaction using either debit, credit or e-money have a much higher shopping score than students who never or rarely use them.

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