

Consumption Patterns of Dormitory Students at a Private University

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Date Received: 14 November 2019 Revised: 2 February 2020 Accepted: 17 February 2020

Abstract

In this study the consumption patterns of dormitory students in a private university in Indonesia was investigated. The study covered both food and non-food consumption patterns based on gender, years of study, and type of dormitory. The research instrument was an adapted and modified questionnaire administered through a convenience sampling technique to students ($N = 441$) from seven dormitories. A t -test and one-way ANOVA along with Tukey's Test were used to analyze the data. It was found that female students generally displayed a higher consumption pattern than males, with non-food items being higher than food consumption for both groups. Expenditure on sports was an exception, with males spending more than females. It was concluded that female students had a greater number of needs to satisfy. Generally, those students who lived in cheaper dormitories tended to spend less than those in the more expensive ones. Senior students tended to spend more on food and less on non-food items than other cohorts. Student needs were unique and varied, especially for non-food consumption items.

Keywords: *Consumption patterns, dormitory students, private university*

Introduction

Consumption is a common yet crucial activity in peoples' lives. Consumption has a broader meaning than in reference to food and drink. It involves not only food, but also other things individuals buy or consume to fulfill their needs and wants. What people consume can measure needs, but it also could measure poverty better, because deprived people report their consumption patterns more accurately (Galer, 2012). In addition, someone's welfare can be measured from the level of consumption. Rifqi (2015) found that people who consumed sufficient calories had a greater possibility of thriving compared to those with poor intakes. The fulfillment of basic needs permits an individual to fulfill other needs. This is in line with Maslow's Hierarchy of Needs Theory (Robbins & Judge, 2013).

College students, like other people, show various consumption activities, not only for food and drink, but also for other commercial items (Mulyani, 2015). In studies of young men students, it has been found that they are more aware of branded products (Jeevitha & Priya, 2019) and are exposed to lifestyles that could tempt them to spend excessive money on such things (Tyagi & Ranga, 2017). Student consumption patterns vary covering both their needs and wants. However, because most of them focus on their study and have no obligation to work to earn money, their main source of money comes from their parents (Wurangian, Engka, & Sumual, 2015), which could make some of them less responsible in managing the money given. This could lead to shortness of cash and possibly to financial problems (Bona, 2017). Therefore, it is a good thing when they spend their money wisely to meet their needs and wants.

Studies have been conducted to monitor college students' consumption patterns, and to determine whether there are general consumption patterns among students (Maxey, Fenske, & Boyd, 1979; Tama, 2014; Wurangian, Engka, & Sumual, 2015; Bona, 2017; Jeevitha & Priya, 2019). Some of the studies focused solely on non-food consumption patterns (Mulyani, 2015; Julian, 2016). Studies mainly have focused on students who lived off campus, except for a study completed by Maxey,

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This paper was presented at the 7th International Scholar's Conference held on October 28–29, 2019 at Universitas Advent Indonesia, and selected for publication in HBDS.

Fenske, and Boyd (1979). Meanwhile, studies specifically for dormitory students and their consumption patterns are rare and focused on dietary habits and nutrition (Kim & Kim, 2005), not on their general consumption or spending patterns.

It is expected that this study might contribute valuable information to students, parents, and university administrators. For students, they can gain insights into their consumption patterns so that they will know how their money is spent. On the other hand, parents may learn about their children's consumption so that they can give good advice on managing money and providing guidance on priorities when buying. As for administrators, they will gain valuable information of what students need and how they can provide for these needs on campus. In addition, this study can give additional knowledge about consumer behavior and preferences regarding dormitory students' consumption patterns.

Literature Review

The patterns of students' consumption have been investigated in a number of configurations. Maxey, Fenske, and Boyd (1979) investigated spending patterns of scholarship holders in three categories: those living with family, those owning their own home or apartment, and those living on campus. They found that students living with families spent most on tuition, followed by transportation, clothing, books and stationery, entertainment, and personal expenses. Meanwhile, the group of students who had their own houses or apartments spent their money on rooms or rent, tuition fees, transportation, books, clothing, and so on. The third group, students who live on campus, had the most expensive consumption pattern, namely dormitory and tuition fees, books and stationery, clothing, entertainment, and so on. In addition, it was also found that students living on campus (dormitories) had higher personal expenses than the other two groups. This is because they lived alone and received an allowance from parents, so they managed their own expenses. A recent study by Bona (2017) found that most college students in Cantilan, the Philippines, spent a larger proportion of their money for school assignments and supplies, while they spent less for fashion and transportation. This was considered due to the higher cost of supply materials and cheaper public transportation in the study area. Meanwhile, a recent study by Jeevitha and Priya (2019) found that beauty care accounted for the highest spending of college students in Coimbatore, India. These studies showed different patterns, ostensibly because of country differences. Yet, both suggested that college students should plan wisely on their spending and plan to save some of their money for future use.

In Yogyakarta, studies were carried out by Tama (2014) and Mulyani (2015), who examined the consumption of students at one of the state universities. The difference between these two studies was that while the first one examined student consumption in general, the subsequent study focused on students' non-food consumption patterns. Tama's (2014) study found that while there were no differences in food and non-food consumption between male and female students, males actually consumed more food than females. In addition, there were differences in consumption patterns for students who lived in boarding houses and those who lived with their parents. Those who lived in boarding houses rarely ate breakfast and used their allowances for communication and transportation. In contrast, the study by Mulyani (2015) found—interestingly enough—that their biggest consumption items were fashion products, followed by entertainment, transportation, communication, and tuition support costs. It is understandable that the development of fashion trends and lifestyles makes students strive to stay updated with the latest looks. This trend was supported by Cosmas (1982) who found that there was a relationship between lifestyle and the decision to buy a desired product. It was also found that while there were no differences in consumption patterns by gender, the allocation for fashion was greater for women, while for men it was for transportation. Further, this study found that non-food consumption was higher than food-consumption in all years of the study, with fashion and transportation topping the list.

Consumption patterns of students were also examined in Lampung, Indonesia, by Julian in 2016. The results showed that monthly allowances had a positive effect on the consumption of students living in boarding houses. The greater the allowance, the higher the consumption. Another

finding was that male students consumed fewer goods and services than female students. In addition, those who had savings demonstrated less consumption than those who did not. Finally, students living in boarding houses spent on various things besides for college supplies, as they needed to take care of themselves.

Methods

This study used a quantitative approach, where the research instrument was a questionnaire adopted from Mulyani (2015) and several previous studies. Slight modifications were introduced to include questions about food expenses. Dormitory heads, monitors, and students assisted with questionnaire distribution. After distribution, these groups received instructions on answering strategies for the questionnaire, so as to be able to offer help to all respondents. The population of the study was Universitas Klabat (UNKLAB) students during second semester of the 2017–2018 academic year who resided in three male dormitories, namely Genzet, Crystal, and Guest House dormitories. It also included residents of four female dormitories, namely Bougenville, Edelweiss, Annex, and Jasmine. These dormitories are ranked from the least to most expensive dormitories at UNKLAB. Using a convenience sampling technique, 459 dormitory students were involved and participated in the research, yet 18 students did not answer the questions properly. Thus, valid samples were received from 441 students consisting of 104 students from Crystal, 25 students from Guest House, 30 students from Genzet, 77 students from Jasmine, 147 students from Edelweiss, 43 students from Annex, and 15 students from Bougenville. To analyze the data, a descriptive analysis technique was used. To determine whether different consumption patterns existed based on gender, a *t*-test analysis was used, while regarding their years of study and type of dormitory, a one-way ANOVA with Tukey's Test was used.

The investigation was implemented to study both food and non-food consumption patterns of students who resided in UNKLAB dormitories. Based on this purpose, the following hypotheses were generated:

H₀: There is no difference in the consumption patterns of dormitory students based on gender, years of study, and type of dormitory.

H₁: There are differences in consumption patterns of dormitory students based on gender, years of study, and type of dormitory

Results and Discussion

The consumption patterns were divided into two categories: food (food, drinks, snacks), and non-food consumption (transportation, phone credit, Internet, entertainment, college supplies, cosmetics and toiletries, accessories, clothing, hobby, and sports). It is shown that in general, dormitory students spend more money for non-food consumption (mean = 360,000 Rupiahs, or US\$ 26.32)², compared to 221,000 Rupiahs (Rp., or about US\$ 16.16) for food consumption.

The three variables that had the highest mean values were food (Rp. 124,650, or \$9.12), college supplies (67,390, or \$4.93), and Internet packages (63,710, or \$4.66). The average dormitory students spent their allowance monthly as follows: Private transportation Rp. 9,430, sports equipment Rp. 9,510 and hobbies Rp. 14,390. Overall, the average non-food consumption expenditure of dormitory students was greater than that for food consumption. This is understandable because of the diverse non-food needs of students, and the many things they needed to purchase. The smallest consumption or expenditure was for private transportation, presumably because dormitory students were not permitted to bring their private vehicles. The existence of such expenses is possibly on account of some students' families living near campus, and those who have vehicles which were brought occasionally near to the campus.

² At current exchange rates, US\$ 1 is equivalent to about 13,800 Rupiahs.

Table 1 presents the descriptive statistics results of students' consumption patterns based on gender. The average non-food consumption patterns for both males and females were higher than their food consumption patterns, even though females had higher consumption patterns for both categories compared to males. This may be on account of the fact that they can eat in the university cafeteria, so they spend more money on non-food consumption. However, some of them do spend a lot on food (maximums of Rp. 1,450,000, or \$106.02, and Rp. 1,210,000, or \$81.97, for male and female, respectively), especially for those who came from wealthy families.

Table 1. Overall Consumption Patterns of Male and Female Students

Gender	<i>N</i>	Mean	Median	<i>SD</i>	Var.	Min.	Max.
Male							
Food consumption	159	169.27	100.00	210.07	44,127.93	0.00	1,450.00
Non-food consumption	159	274.69	177.00	322.40	103,940.05	0.00	2,000.00
Female							
Food consumption	282	250.73	200.00	213.12	45,420.91	0.00	1,210.00
Non-food consumption	282	408.11	300.00	368.14	135,530.07	0.00	1,865.00

Note: In thousand Rupiahs

Students' consumption patterns based on year of study are shown in Table 2. Average food consumption of freshmen was the lowest compared with sophomores, juniors, and seniors, while non-food consumption of juniors was the highest, with the lowest being shown by senior students. There are two possibilities to account for this pattern. First, it could be that freshmen students spend less to buy food and instead eat at the cafeteria, while senior students spend more to buy food. Second, freshmen students tend to buy cheaper food than others. Senior students, on the other hand, spend more on average on food. Otherwise, non-food consumption of senior students was the lowest, probably because they reduced their unnecessary consumption and become wiser in managing their money, or because they needed to save money for paying graduation fees by reducing their spending. This finding contradicts the data of Villanueva (2017), who found that senior students on average spend more than others, except for freshmen students. This is possibly a reflection of different cultures and mindset, where senior students in New York spent more as they looked forward to receiving higher incomes when they graduated.

Table 2. Overall Student Consumption Patterns Based on Year of Study

Years of Study	<i>N</i>	Mean	Median	<i>SD</i>	Var.	Min	Max
Freshmen							
Food consumption	195	199.18	145	203.19	41,284.42	0	1,450
Non-food consumption	195	344.58	250	325.04	105,649.66	0	1,650
Sophomore							
Food consumption	109	228.48	150	202.69	41,083.01	0	900
Non-food consumption	109	372.19	270	336.57	113,276.27	0	1,260
Junior							
Food consumption	80	228.69	158	208.64	43,528.83	0	1,000
Non-food consumption	80	404.09	250	430.56	185,383.19	0	1,865
Senior							
Food consumption	57	273.37	200	275.98	76,167.63	0	1,000
Non-food consumption	57	327.60	200	393.33	154,706.07	0	2,000

Note: In thousand Rupiahs

Meanwhile, students' consumption patterns based on their dormitories showed that the average food and non-food consumption patterns reflected the type of dormitory occupied. Those who lived in a cheaper dormitory tended to spend less than those in expensive dormitories. The reason was that students who lived in expensive dormitories came from medium- to upper-income families,

and usually received greater allowances from their parents, resulted in a higher consumption, a conclusion supported by Julian (2016).

In the meantime, the average food and non-food consumption for females showed a different pattern. While the average food and non-food consumption pattern increased from Bougenville, and Edelweiss to Annex dormitories in line with increasing accommodation costs, it unexpectedly decreased in the Jasmine dormitory (the most expensive). In general, students residing in female dormitories spent more than their compatriots in male dormitories.

Students' consumption patterns based on gender, years of study, and type of dormitory were analyzed using various tests—*t*-test and ANOVA with Tukey's Test. The former test was used for gender, and the latter for years of study and type of dormitory. Table 3 shows that there were substantial differences in consumption patterns between genders. The higher values were recorded uniformly for females, except for expenditures on sports where males outdid the females.

Table 3. *T*-test for Equality of Means Results on Student Consumption Patterns Based on Gender

	<i>t</i>	<i>df</i>	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Food	-2.68	439.00	.008	-36.13	13.48	-62.63	-9.64
Drinks	-2.53	439.00	.012	-11.98	4.74	-21.30	-2.66
Snacks	-5.58	439.00	.000	-33.35	5.97	-45.09	-21.61
Transportation- Owned	-.06	439.00	.953	-.24	4.14	-8.39	7.90
Transportation- Public	-.43	439.00	.667	-2.13	4.94	-11.85	7.59
Phone	-2.04	439.00	.042	-6.67	3.27	-13.11	-.24
Internet	-5.20	439.00	.000	-30.10	5.79	-41.47	-18.73
Entertainment	-3.28	439.00	.001	-19.14	5.83	-30.61	-7.68
College supplies	-2.28	439.00	.023	-19.11	8.39	-35.60	-2.62
Cosmetics and Toiletries	-6.28	439.00	.000	-42.43	6.76	-55.71	-29.14
Accessories	-2.03	439.00	.043	-12.17	5.98	-23.93	-.41
Clothing	-1.22	439.00	.224	-10.29	8.46	-26.91	6.33
Hobby	-.01	439.00	.996	-.03	4.67	-9.20	9.14
Sports	2.79	439.00	.005	8.89	3.18	2.63	15.14

It is found that females spent significantly more on food, drinks, snacks, phone credit, Internet, entertainment, college supplies, cosmetics and toiletries, and accessories, while there were no differences in consumption patterns for transportation, clothing, and hobbies. Female students spent more money on average to buy food, drinks, and snacks monthly (Rp. 137.670, Rp. 46,130, and Rp. 66,930, respectively) compared to male students (Rp. 101.540, Rp. 34.150, and Rp. 33.580). It should be noted that females spent two times more on snacks than male students. This finding is supported by YouGov (2015) and Nieburg (2013). Further, it is found that female students also spend more money monthly than males to buy phone credit (Rp. 28.320 vs. Rp. 21.640), Internet (Rp. 74.560 vs. Rp. 44.460), entertainment (Rp. 36.030 vs. Rp. 16.890), and school supplies (Rp. 74.280 vs. Rp. 55.170). A similar expenditure pattern was observed in a previous study completed by Mulyani (2015).

Certainly, average monthly expenditure for cosmetics and toiletries were greater for female students (Rp. 62.020) than for males (Rp. 19.590). Female students also spent more than males for accessories (Rp. 33.370 vs. Rp. 21.190). Conversely, male students spent more on sports than females (Rp. 15.190 vs. Rp. 6.310), which accords with previous findings (Cerar, Kondrič, Ochiana, & Sindik, 2017). Therefore, according to the *t*-test, H_0 was accepted and H_1 was rejected.

Meanwhile, ANOVA analysis of data on consumption patterns of students by year of study showed a significant difference ($p = .14$) only for food consumption. The details are given in Table 4. Senior students spend more for food than freshmen. No other differences in consumption patterns were found. Thus, H_0 was rejected and H_1 was accepted.

Table 4. Student Food Consumption Patterns Based on Year of Study (Tukey's HSD)

Years of Study	<i>N</i>	Subset for alpha = 0.05
Freshmen	195	106.15 ^a
Sophomore	109	127.40 ^{ab}
Junior	80	132.65 ^{ab}
Senior	57	171.40 ^b
Sig.		0.56

Note: Figures followed by the same letter are not significantly different.

Lastly, different consumption patterns were found among students based on type of dormitory in respect to food, drinks, snacks, public transportation, phone, Internet, entertainment, cosmetics and toiletries, hobby, sports ($p < .05$). On the other hand, no differences were found in terms of self-owned transportation, college supplies, accessories, and clothing. Detailed analysis of these differences (Table 5) clearly showed that the Genzet dormitory students differed from the Guest House, Jasmine, and Annex students. While Annex students are different from Bougenville, Crystal and Edelweiss, they are not different from students from the other dormitories. Overall, the consumption of students who lived in the Annex dormitories was higher than others, while those who live in Genzet was the lowest. Furthermore, students who lived in the Guest House, Jasmine, and Annex dormitories spent more for food (more expensive accommodation), presumably on account of getting larger allowances from their parents.

Table 5. Differences (Tukey's HSD) in Food Consumption Patterns Based on Type of Dorm

Dormitory	<i>N</i>	Food	Drinks	Snacks
		Subset for alpha = 0.05	Subset for alpha = 0.05	Subset for alpha = 0.05
Genzet	30	50.67 ^a	12.90 ^a	9.80 ^a
Bougenville	15	100.00 ^{ab}	27.00 ^{ab}	37.33 ^{ab}
Crystal	104	102.55 ^{ab}	36.02 ^{ab}	40.17 ^{ab}
Edelweiss	147	109.53 ^{ab}	41.29 ^{ab}	65.11 ^{bc}
Jasmine	77	158.7 ^{bc}	42.34 ^{ab}	60.10 ^{bc}
Guest House	25	158.40 ^{bc}	51.88 ^{bc}	34.68 ^{ab}
Annex	43	209.37	76.16 ^c	95.70 ^c
Sig.		0.48	0.1	0.3

Drink consumption for students at the Genzet dormitory was different from Guest House and Annex, but it was not different from students who lived in other dormitories. While Annex students differed in drink consumption with their compatriots in Genzet, Bougenville, Crystal, Edelweiss, and Jasmine, they were not different from students in the Guest House dormitory. Furthermore, the snacks consumption pattern of students from Genzet dormitory was different from those who lived in the Jasmine, Edelweiss and Annex dormitories, although there were no differences with students from other dormitories. While students from the Annex dormitory had differences in the consumption

of snacks from those who lived in Crystal, Bougenville, Guest House, and Genzet dormitories, they were statistically not different from students who lived in other dormitories.

Table 6. Differences (Tukey’s HSD) in Non-Food Consumption Patterns Based on Type of Dorm

Dormitory	N	Public Transportation	Phone	Internet
		Subset for alpha = 0.05	Subset for alpha = 0.05	Subset for alpha = 0.05
Genzet	30	5.33 ^a	10.33 ^a	9.43 ^a
Bougenville	15	10.87 ^{ab}	25.27 ^{ab}	43.33 ^{ab}
Crystal	104	22.56 ^{abc}	23.40 ^{ab}	52.44 ^{bc}
Edelweiss	147	21.26 ^{abc}	25.80 ^{ab}	71.71 ^{bc}
Jasmine	77	16.91 ^{ab}	28.78 ^{ab}	78.44 ^{bc}
Guest House	25	42.24 ^{bc}	27.88 ^{ab}	53.28 ^{bc}
Annex	43	54.14 ^c	37.14 ^c	88.26 ^c
Sig.		0.74	0.20	0.15

Dormitory	N	Entertainment	Cosmetics & Toiletries	Hobbies
		Subset for alpha = 0.05	Subset for alpha = 0.05	Subset for alpha = 0.05
Genzet	30	1.67 ^a	13.17 ^a	4.67 ^a
Bougenville	15	5.33 ^a	40.47 ^{ab}	0.00 ^a
Crystal	104	18.08 ^{ab}	21.35 ^{ab}	8.99 ^a
Edelweiss	147	24.08 ^{ab}	65.00 ^b	12.65 ^a
Jasmine	77	48.77 ^{bc}	60.45 ^{ab}	16.23 ^{ab}
Guest House	25	30.20 ^{abc}	20.00 ^{ab}	48.40 ^b
Annex	43	64.77 ^c	62.14 ^b	22.09 ^{ab}
Sig.		0.34	0.05	0.39

In terms of public transportation, there were differences in consumption patterns between Genzet, Guest House, and Annex students, but they were not different from students in other dormitories. Students from the Annex dormitory were different from those who lived in Genzet, Bougenville, and Jasmine.

Differences in telephone credit consumption patterns existed between Genzet and Annex students, but no differences were found with students from other dormitories. Meanwhile, students from the Annex dormitory had differences in telephone credit consumption from all students from other dormitories. Varied results appeared in the consumption of Internet packages where Genzet students differed from students from Crystal, Guest House, Edelweiss, Jasmine, and Annex dormitories, but were not different from students from other dormitories. Students from the Annex dormitory differed in consumption of Internet packages with students from Bougenville and Genzet. Further, consumption for entertainment was different for students who lived in Genzet's dormitories from Jasmine, and Annex's dormitory students, but it was not different from students in other dormitories. Then, Annex dormitory students displayed different consumption for entertainment with students from Edelweiss, Crystal, Bougenville, and Genzet dormitories, as well as Bougenville dormitory students having different entertainment consumption from students from Jasmine and Annex.

For cosmetics and toiletries, Genzet students were statistically different from students from Annex and Edelweiss dormitories, but they were not different from students from others who lived in other dormitories. Finally, there was a difference in consumption pattern of hobbies from Bougenville students against those who lived in the Guest House dormitory. These Guest House dormitory students had different consumption patterns compared with Edelweiss, Crystal, Genzet, and Bougenville students.

While in the ANOVA test, sports consumption was found to be significant ($p < .05$), yet in Tukey’s Test, no differences were found among students. To conclude, no statistical differences in consumption were found for the categories of personal transportation, accessories, college supplies, clothing, and sports for students who lived in the seven dormitories on campus. Thus, H_0 was accepted and H_1 was rejected. However, because there were differences in the consumption patterns of

dormitory students in terms of food, drinks, snacks, public transportation, telephone, Internet packages, entertainment, cosmetics and toiletries, as well as hobbies, H_0 was rejected and H_1 was accepted for these categories.

Overall comparisons showed that students living in the Annex dormitory had the highest average food and non-food expenses compared to other dormitories. In contrast, students who lived in the Genzet dormitory had the least average expenditure on food and non-food items. For students who lived in Genzet, this is understandable because they were mostly working students, so they ate more often in the campus cafeteria, and their other expenses were not as much as students from the other dormitories. However, what was surprising was the average consumption of female students living in Annex dormitory was greater than female students who lived in Jasmine dormitory, which was more expensive. This might have happened on account of the following: the location of the Annex dormitory was closer to outlets for buying off-campus food. Alternatively, Jasmine female students may have been visited more often by families bringing food from home.

Conclusions

The results of this study provide some advice or input for students, parents, and the university. For students, especially those living in dormitories, it is important to know their monthly consumption patterns so that they can manage their monthly allowances better. Furthermore, for parents, knowing the consumption patterns of their children can provide an idea of how their children live in the dormitories and their monthly consumption needs. For the university, the consumption patterns of students who live in dormitories provides important information allowing provision for their needs on campus so that they do not go out often to buy food and non-food items.

The results of the *t*-test and ANOVA—together with the Tukey's Test—showed differences in consumption patterns of dormitory students based on gender, years of study, and type of dormitory. It was found that female students generally displayed a higher consumption pattern than males, with non-food being higher than food consumption for both groups. Expenditure on sports was an exception, with males spending more than females. It was concluded that female students had a greater number of needs to satisfy. Generally, those students who lived in cheaper dormitories tended to spend less than those in the more expensive ones. Senior students tended to spend more on food, and less on non-food items than other cohorts.

Limitations

There are several limitations of this research, such as the short time span (one semester) over which data was gathered. Gathering data for at least two semesters would have allowed student consumption patterns to be better mapped. In addition, the sampling method used was a convenience sampling method. Another limitation may have been the combination of several consumption items into one variable. For further research, it may be advisable to further detail consumption items, especially for non-food items, so that a more comprehensive understanding is gained. Future studies might also add responses from students who lived outside of campus to gain better insights regarding their consumption patterns, and make comparisons with dormitory students.

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