



Research Paper

# Cluster Analysis on Financial Management Behavior of Generations Y and Z in Muara Bungo City

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## Abstract

Financial management behavior basically refers to some form of financial behavior related to activities such as investment, saving, credit, and cash management. This study aims to analyze the division of financial management behavior clusters of generation Y and Z in Muara Bungo City. The type of research used is descriptive research. This study also used a Quantitative approach. The sample population is Generation Y and Z in Muara Bungo City. The sampling method used in this study was purposive sampling. Data Analysis Techniques using Cluster Analysis. The results of cluster analysis with three clusters or segmentation found that the segmentation of financial management behavior of generations Y and Z in Muara Bungo City consists of a generation that has a strong financial management behavior commonly called responsible customers, a generation that has low financial management behavior, and a generation of credit-saving customers or strong in credit and savings management. Generations that have low financial management behavior are mostly dominated by generation Z.

**Keywords:** cash management, savings management, credit management

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## I. INTRODUCTION

As a growing and developing area, Muara Bungo City is inhabited by people consisting of various generations, including Generation Y and Generation Z. Generation Y was born in 1980-1994, also known as the Millennials, Nexters, or Net-Generation (Dabija et al., 2020). During this time, personal computers, the internet, and communications technology developed rapidly. This allows information about the outside world to be obtained more quickly. Generation Z was born from 1995 – 2010. At this time, technology is very close to society.

The different conditions in which each generation grows up make the behavior and character between generations also different. This also influences the financial management behavior of each generation. Financial management behavior is a complex set of behaviors related to decision making and its consequences in financial aspects (Alva & Rita, 2022).

Financial management behavior basically refers to several forms of financial behavior related to cash management, savings management and credit management (Mazzatto et al., 2022). Cash management is a person's ability to pay all his obligations. Savings management is a person's ability to save a portion of their income that is not consumed in a certain period (Alva & Rita, 2022). Credit management is a person's ability to manage debt to improve welfare (Lambert et al., 2023).

Currently, the role of financial management behavior is increasingly important. This is mainly due to increasingly competitive economic conditions where the population continues to increase and is not accompanied by a proportional increase in employment opportunities. Carlin, Olafsson, and Pagel (South Ayrshire Council, 2020) explained that each aspect of financial management behavior can influence personal and household financial conditions. A person's ability to manage their cash, debts and savings will have an impact on daily operational activities, which will also shape their financial condition in the future. This confirms that financial management behavior is very important to learn and apply in everyday life.

Based on the background above, this research aims to segment the financial management behavior of generations Y and Z in Muara Bungo City. This research is considered important because to the best of the author's knowledge, there are still not many similar studies that compare financial management behavior between generations. From the results of this research, it is hoped that generations Y and Z will be more aware of their respective financial management behavior patterns and can study the financial management behavior of other generations, as an effort to improve and improve their financial conditions.

## **II. METHOD**

Financial management behavior is a very important financial concept. Financial management behavior is a person's ability to organize planning, budgeting, auditing, managing, controlling, searching for and storing daily financial funds (Widya et al., 2022). Financial management behavior relates to a person's responsibility for managing money and other assets.

The emergence of financial management behavior is the impact of a person's great desire to fulfill their life needs in accordance with the level of income they obtain (Adiandari & Okvitawanli, 2023). The main goal in financial management behavior is to ensure that individuals are able to manage their finances and obligations well (Mazzatto et al., 2022).

According to Dew and Xiao (Wiyanto et al., 2022), a person's financial management behavior can be seen from several orientations, namely cash management, savings management, and credit management.

1. Cash Management or cash flow is the main indicator of financial health by looking at a person's ability to pay all their obligations. According to Hilgert et al. (2003), cash flow management can be measured by whether someone pays bills on time, pays attention to records or proof of payment and makes financial budgets and plans for the future.

2. Savings is the part of a person's income that is not consumed in a certain period (Professional Insight, 2021). Basically, a person does not know what will happen in the future and there are often unexpected expenses that must be paid. (Wulandari, 2022) so that everyone needs to have the ability to manage savings well.

3. Credit management or debt management is a person's ability to utilize their debt so as not to make someone go bankrupt or in other words, namely utilizing debt or improving welfare (Wiyanto et al., 2022).

Generations are defined as a group of individuals born and living simultaneously, who have the same knowledge and experiences that influence thoughts, values, beliefs and behavior (Hong Shan et al., 2023). In line with this definition, (Susanto et al., 2022) define a generation as a group of people who were born in the same time period, experiencing various life experiences and the same social and historical life events.

There are many influences that shape the character of a generation, such as spectacular events and crises (war or economic disaster), the place of growth, as well as technology, fashion, music, films, and prominent people who enter a person's mind when they are young. Some of these beliefs remain in the mind even when growing up (Renaldo et al., 2020).

Generation Y tends to depend on technology. Because they were born in the era of globalization and depend on gadgets and the internet, this generation tends to have a consumptive nature, buying internet packages and even buying the latest gadgets. On the other hand, (Cahyasari & Pahala, 2023) explained that generation Y has the opportunity to obtain a better level of education compared to the previous generation, so that generation Y has a more complex mindset and considerations regarding financial management behavior. Much more varied investment and credit products also provide attractive options for generation Y in making decisions regarding financial management behavior. Reporting from Forbes.com, apart from using their money to buy gadgets, Generation Y is also interested in buying a house. In fact, quoted from Investment News, the percentage of millennial money used is more for buying houses than for traveling, which has long been attached to the identity of the millennial generation. For example, applications for home ownership credit (KPR) by the millennial generation increase from year to year. This can be seen from Bank Indonesia (BI) data which shows an increase in KPR from 2014 to 2017 (Maharani, 2018).

(Negara et al., 2022) added that generation Y has a higher level of awareness about investing and has more courage in bearing risks from investment activities. This also has an impact on cash management. However, generation Y is described as a more advanced generation consumerism compared to previous generations. It is said that income allocated to savings averages around 10.7% of income level and only 2% is actually allocated to investment. This phenomenon shows that even though they have awareness in investing and are brave in taking risks, the realization is still lacking.

Generation Z was born and grew up in an era where technology grows and influences the digital world. This generation can also be called the "mobile generation" or it can be said that the internet and social media are the main needs for generation Z (Adiandari & Okvitawanli, 2023). This condition makes generation Z tend to spend their money on fashion, food and travel, in order to fulfill their status on social media (Maharani, 2018). Basically, the financial management behavior pattern shown by generation Z has not thought too much about

their saving behavior because they are still very young. It can be said that generation Z does not yet have a comprehensive understanding of financial management behavior. Beck and Garris (2019) conducted research in the United States (US) and also added that generation Z is a generation that still needs to learn financial knowledge to form better financial management behavior (Wulandari, 2022).

In this research, the factors that shape the financial management behavior of generations Y and Z and the clusters that are formed will be tested. The population used in this research is residents of Muara Bungo City, with sample characteristics aged 18-40 years (Generation Y and Z) and having cash inflow every month. The selected respondents were at least 18 years old, because at the age of 18 the individual is considered an adult and can manage finances (Sanistasya et al., 2019). Data collection was carried out by distributing questionnaires to employees in the Muara Bungo City area because the majority of generations Y and Z were already working.

*Cash Management* in this research it is defined as the ability of Generations Y and Z to pay all their current obligations. There are four indicators used to measure cash management, namely the ability to pay bills on time, the ability to compare prices when purchasing goods/services, the ability to record monthly expenses, and the ability to make financial budgets and plan for the future.

*Credit Management* in this research it is defined as the ability of generations Y and Z to manage debt to improve welfare. There are three indicators used to measure credit management, namely paying bills in full every month, reducing loan balances, and repaying loans on time.

*Savings Management* in this research it is defined as the ability of generations Y and Z to save part of their income that is not consumed in a certain period. There are three indicators used to measure savings management, namely having emergency funds, saving regularly, and saving for specific purposes.

All statements in this questionnaire will be measured using a Likert scale (1-5) and their validity and reliability will be tested. After that, data processing will be carried out using cluster analysis. There are two procedures in clusters, namely hierarchical clusters and non-hierarchical clusters. In this cluster analysis research, hierarchical clusters were used, then continued using k-means clusters. The hierarchical method is used to identify the ideal number of clusters and this method is used when the sample size is moderate (Hair Jr et al., 2009). K-means cluster method to determine constraints on the number of clusters to be formed. Respondent data was analyzed using cross tabulation and cluster analysis (Filki, 2022).

### III. RESULTS AND DISCUSSION

#### Respondent Profile

Respondents in this study numbered 200 people. The respondent profile can be seen from the following table:

Variable	Category	Generation			
		Y		Z	
		Amount	%	Amount	%
Gender	Man	49	45.37%	49	53.26%
	Woman	59	54.63%	43	46.74%
Work	Housewife	8	7.41%	0	0.00%
	Employees (Private/PNS)	50	46.30%	31	33.70%
	Student/Students	1	0.93%	26	28.26%
	Professional	12	11.11%	4	4.35%
	Self-employed	37	34.26%	31	33.70%
Level of education	JUNIOR HIGH SCHOOL	0	0.00%	1	1.09%
	SMA/SMK equivalent	12	11.11%	17	18.48%
	D3	6	5.56%	0	0.00%
	S1	73	67.59%	69	75.00%
	>S1 (S2/S3)	17	15.74%	5	5.43%
Marital status	Not married yet	42	38.89%	83	90.22%
	Married, already has children	57	52.78%	4	4.35%

*Cluster Analysis on Financial Management Behavior of Generations*

	Married, no children yet	9	8.33%	5	5.43%
Method Most Preferred Payments	e-wallet (OVO, Gopay, Dana, etc.)	22	20.37%	28	30.43%
	Debit Card	26	24.07%	34	36.96%
	Transfer	33	30.56%	20	21.74%
	Cash	27	25.00%	10	10.87%
Priority use of funds	Cost of living	67	62.04%	15	16.30%
	Lifestyle	5	4.63%	13	14.13%
	Holiday	3	2.78%	7	7.61%
	Save		0.00%	2	2.17%
	Venture capital	33	30.56%	45	48.91%
The most preferred credit options	Bank	2	1.85%		0.00%
	Pay cash, not credit	2	1.85%		0.00%
	Pawn	5	4.63%		0.00%
	Home credits	9	8.33%	1	1.09%
	Credit card	90	83.33%	91	98.91%
Form of savings/investment what is your favorite?	Deposit	26	24.07%	10	10.87%
	Deposits, Investments	6	5.56%	5	5.43%
	Deposits, Mutual Funds		0.00%	1	1.09%
	Gold and stocks	1	0.93%		0.00%
	Investment	21	19.44%	13	14.13%
	Savings at the bank	29	26.85%	25	27.17%
	Savings at the bank, Deposits	6	5.56%	7	7.61%
	Savings in banks, deposits, investments	15	13.89%	26	28.26%
	Savings at the bank, Investment	3	2.78%	5	5.43%
	Savings in banks, Investments, Insurance	1	0.93%		0.00%
Cash Management	Above average	69	63.89%	38	41.30%
	Below average	39	36.11%	54	58.70%
Credit Management	Above average	87	80.56%	50	54.35%
	Below average	21	19.44%	42	45.65%
Savings Management	Above average	77	71.30%	49	53.26%
	Below average	31	28.70%	43	46.74%

Data source: Researcher, 2024

Based on the data above, it can be seen that the majority of gen Y respondents are female (54.63%), and the majority of gen Z respondents are male (53.26%). The three largest occupational groups in gen Y are Employees (46.3%), Entrepreneurs (34.26%), and Professionals (11.11%); Meanwhile, in Gen Z, the proportion of respondents who work as employees and entrepreneurs is the same, namely 33.7% of all Gen Z respondents, and the third largest professional group is students (28.26%). Most of the Gen Y respondents were married and had children (52.78%), while almost all of the Gen Z respondents in this study were not married (90.22%).

In terms of preferred payment methods, the majority of Gen Y respondents prefer payment by transfer (30.56%) and cash (25%), while the majority of Gen Z respondents prefer payment by debit card (36.96%) or ewallet (30.43%). Generation Y prioritizes using their funds to meet their living needs (62.04%), while generation Z prioritizes their funds for business capital (48.91%).

If we look at the Cash Management score, the majority of generation Y respondents have scores above the overall average score of respondents. Likewise, in terms of credit and savings management, the majority of

generation Y respondents have scores above the average. Generation Z respondents mostly had scores above average for credit and savings management, but most had scores below average for cash management.

**Cluster Analysis**

The cluster analysis step begins with standardizing research data based on the Z score. Based on the standardization results, the data that has been converted into a Z score is tested for the multicollinearity assumption first. The results of the multicollinearity assumption test show that all variables have more tolerance values greater than 0.1 and the VIF value is smaller than 10 so it can be concluded that there are no cases of multicollinearity.

The next step is cluster analysis. Based on the results of K Means Cluster Analysis, 3 clusters were formed, with members totaling 99 respondents, 54 respondents and 47 respondents. Cluster 1 is dominated by generation Y, namely 58.3% (63 respondents), clusters2 is dominated by generation Z, namely 40.2% (37 respondents), and cluster 3 is dominated by generation Y, namely 26% (28 respondents).

To find out whether there are significant differences regarding the characteristics of the residents of each cluster, an ANOVA test was carried out, and the results show that the characteristics of the residents of each cluster are generally significantly different from each other, as seen from the significance value from the ANOVA table  $< 0.05$

Based on the results of the research data that has been presented, an interpretation of the characteristics of the residents of each cluster can be made as follows:

**Characteristics of Cluster Fulfillers**

Profile/ Statement	Contents Clusters		
	1	2	3
I pay my bills on time	+	-	-
I compare prices when I buy products or services	+	-	-
I always set a draft budget for my expenses every month	+	-	-
I record my monthly expenses	+	-	-
My expenses never exceed my budget plan	+	-	-
I always set aside cash to pay my monthly bills	+	-	-
I always pay loans in full every month (e.g. credit cards, home credit, etc.)	+	-	+
My debt balance will definitely decrease every month (eg KPR, MSME debt)	+	-	+
I return what I borrow on time if I borrow	+	-	+
I always pay attention to the due date for payment of my installment bills	+	-	+
I always choose the lowest interest rate for the loan I need	+	-	+
I always choose the installment duration that best suits my income level	+	-	+
I own and manage an emergency savings fund	+	-	+
Every time I receive a salary or income, I always set aside to save	+	-	+
I save for long term goals such as buying a cell phone, car, house, and education costs	+	-	+
I always pay attention to the savings interest offered by banks	+	-	+
I always pay attention to the administrative terms and conditions for my savings (for example minimum deposit duration, administrative and tax deductions, value limits transactions per day)	+	-	+
I am looking for information about the types and features offered for savings from a bank	+	-	+

Data source: Researcher, 2024

The cluster sign column can be interpreted based on the average value being below or above the total average. It is positive if it has a value above the average while negative if it has a value below the average.

**Cluster 1**

Respondents who belong to cluster 1, have good cash management in terms of recording monthly expenses, among the 99 respondents who live in cluster 1, 58.3% of generation Y and 39.1% of generation Z. This shows

that generation Y tends to have strong financial management behavior compared to generation Z. This is in accordance with the opinion of (Mazzatto et al., 2022), who explains that generation Y is a generation that can be taught a lot of financial education because it is already familiar with a lot of technology and this generation's thinking is much more open than Generation Z. Generations Y and Z both have good cash management, where generations Y and Z pay bills on time, always compare prices when purchasing, always record monthly expenses, and expenses never exceed the budget plan.

#### **Cluster 2**

Respondents who fall into cluster 2 have poor cash management in terms of recording monthly expenses, where they are ignorant of financial management behavior. Among the 54 respondents living in cluster 2, 15.7% were generation Y and 40.2% generation Z. This indicates that Generation Z has a lower level of financial management behavior compared to Generation Y. This is in line with the opinion of Beck & Garris (2019) who believes that generation Z is a generation that still needs to learn financial knowledge to form financial management behavior. Generation Y tends to be more wasteful, find it difficult to save and don't really care about future investment needs. Generation Y and generation Z are suspected of facing greater financial risks in the future due to the unhealthy financial management styles of Gen Y and Gen Z. This is supported by research released by Tirto in July 2019 showing that the millennial generation tends to be more wasteful, has difficulty saving and is less concerned about future investment needs (Widya et al., 2022).

#### **Cluster 3**

Respondents who fall into cluster 3 have very poor cash management in terms of recording monthly expenses, where generation Y is called credit-saving customers because they pay more attention to credit and savings management. Among the 47 respondents living in cluster 3, 26% were generation Y and 20.7% generation Z, where Generation Y paid more attention to credit and savings management. This is not the same as the explanation by Ronnfeldt (2001) who believes that generation Y is still not smart enough to save. Furthermore, Financial Brand (2020) believes that Generation Z is a generation that likes to save. However, this generation is not yet visible in its wealth, this generation has started saving from an early age. Many of generation Z already have savings in their own names. Cluster 3, generation Y is stronger in terms of Credit Management than generation Z. Likewise in terms of Savings Management, where generation Y understands the importance of saving. This is in line with (Laturette et al., 2021) who stated that individual financial knowledge will encourage them to act and make decisions, such as saving behavior, which is more common in the millennial generation (35%), compared to baby boomers (25%) and Gen X (26%). However, only a small amount of income is set aside as savings. Research released by Alvara Research in 2017 revealed that savings are the financial product most remembered by today's young generation. However, according to research by the IDN Research Institute in 2019, it turns out that only 10.17% of income was set aside by the millennial generation as savings (Negara et al., 2022).

## **IV. CONCLUSION**

The conclusion that can be drawn from this research is based on the results of cluster analysis with three clusters or segmentations, it is found that the financial management behavior segmentation of generations Y and Z in Muara Bungo City consists of a generation that has strong financial management behavior which is usually called responsible customers, a generation that has financial low management behavior, and generation of credit-saving customers or strong on credit and savings management. The majority of generations with low financial management behavior are dominated by generation Z.

Suggestions for further research could be to examine segmentation for investing, risk management, insurance because this research only segments gen Y and Z based on cash, savings and credit. For financial service providers, from the results of the segmentation carried out on respondents in this study, it is known that generation Z tends to have poor financial management behavior so they are easily influenced emotionally to consume very high amounts, while gen Y has a more careful attitude. in financial management so that the two generations of Z must be given different offers.

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