



## Changes in Consumption Patterns of Makassar People and Their Implications for Social Welfare in South Sulawesi

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### Abstract

*This study examines the changing consumption styles among the Makassar humans in South Sulawesi, focusing at the socio-economic factors influencing these shifts and their implications for social welfare. Using a quantitative research technique and statistical analyses including regression, ANCOVA, and Pearson correlation, the examine investigates the relationship among profits, age, and spending on intake styles. The findings display substantial changes in consumption behaviors, particularly inspired by means of earnings levels, technological improvements, and cultural factors. The consequences spotlight a strong fine correlation between earnings and spending, emphasizing the function of economic factors in shaping client decisions. These findings make a contribution to a better understanding of consumer conduct dynamics in Makassar and offer insights for policymakers, companies, and network leaders in selling inclusive economic boom and social properly-being.*

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## INTRODUCTION

The dynamics of intake styles play a important role in shaping the social and financial landscape of communities, reflecting their values, aspirations, and access to assets. In latest years, the town of Makassar in South Sulawesi, Indonesia, has experienced great shifts in its consumption styles, driven by means of different factors inclusive of economic improvement, globalization, technological improvements, and cultural affects. These modifications have profound implications for the social welfare of the people in Makassar and warrant in-intensity evaluation and discussion.

According to Putra et al. (2020), Indonesia has been undergoing fast urbanization and economic boom, main to changes in lifestyles and consumption behaviors throughout one-of-a-kind areas of the country. Makassar, as one among Indonesia's important city facilities, has not been proof against these modifications. The city's population has been gradually growing, accompanied with the aid of rising earning and changing options amongst its citizens (Montgomery et al., 2013; Roberts, 2020). These demographic and financial shifts have contributed to the evolution of intake styles among the Makassar human beings.

One of the important thing areas of exchange in consumption patterns is evident within the food area (Borsellino et al., 2020; Winkler et al., 2021). Traditional

nutritional habits are being prompted via urbanization, modernization, and accelerated publicity to global food developments. A observe via Clendenning (2023) highlighted that Makassar citizens, in particular the more youthful technology, are increasingly more consuming fast meals and processed snacks, reflecting a departure from traditional diets rich in neighborhood components. This shift is not only a mirrored image of converting tastes however additionally indicates broader socio-monetary changes within the city.

Furthermore, the upward thrust of virtual technology and e-commerce platforms has revolutionized the manner people in Makassar get admission to and purchase goods and offerings (Udayana et al., 2023; Afrina et al., 2020). A report by using Indiani & Febriandari (2023) indicated a tremendous increase in on-line purchasing activities among Indonesian customers, such as those in Makassar. This fashion has implications for both local businesses and clients, affecting employment patterns, market dynamics, and purchaser conduct (Tran et al., 2022; Thorisdottir & Johannsdottir, 2020).

The cultural panorama of Makassar is also present process modifications that have an impact on consumption styles. As mentioned by Purnomo et al. (2021), the combination of worldwide cultural impacts, especially via media and leisure, has caused changes in lifestyle possibilities, style selections, and leisure sports amongst Makassar's citizens. These shifts are not isolated but interconnected with broader socio-monetary elements shaping the metropolis's social material (KC, 2021).

Moreover, environmental issues have become increasingly more crucial in shaping consumption patterns in Makassar (Surya et al., 2021; Sastrawati & Asano, 2021). The awareness of sustainability and green practices is developing amongst purchasers, influencing their alternatives in terms of merchandise, packaging, and intake behaviors (Ketelsen et al., 2020; Herrmann et al., 2022). This fashion displays a broader worldwide motion towards aware consumption and environmental obligation, impacting industries and groups in Makassar (Yustiana et al., 2021).

The implications of these changes in intake patterns for social welfare in Makassar are multifaceted. On one hand, the adoption of latest technologies and current consumption practices can enhance convenience, get entry to to items and services, and overall living requirements for some segments of the populace (Isasi et al., 2021). However, there are also worries concerning equity, health effects, cultural upkeep, and environmental sustainability.

For instance, at the same time as multiplied get right of entry to to digital platforms can decorate marketplace performance and offer possibilities for small corporations in Makassar to reach a much wider audience, it also raises questions about virtual divides, information privacy, and the displacement of traditional brick-and-mortar groups (Saputra & Aminah, 2024; Al Shaher et al., 2023). Similarly, modifications in dietary behavior and consumption of processed foods can also make a contribution to health demanding situations along with weight problems, diabetes, and dietary deficiencies amongst sure companies, necessitating focused interventions and public fitness regulations (Larrue, 2021; Dharva, 2024).

Furthermore, the commodification of tradition and the homogenization of lifestyles due to globalization and media have an impact on boost issues approximately the erosion of local identities, cultural range, and heritage in Makassar (Kartono et al., 2023). Balancing economic possibilities with cultural maintenance and social brotherly love is a sensitive undertaking faced by way of policymakers, network leaders, and civil society groups within the metropolis.

## METHODS

In the current study, stratified random sampling method was adopted to ensure that a representative sample was chosen that would reflect the inclusion of the heterogeneous demographical typology of the city. The stratification was done on some salient variables, age, gender, income and level of education thus increasing representativeness and generalization.

The process of the construction of the instrument started with the comprehensive literature search and concluded with intensive expert consultation, the advice of which helped to make items relevant and perfectly understood and fully aligned with research objectives. An official content-validation was applied as done by expert reviewers whose comments are used to implement subsequent changes. Moreover, a pilot study was given to a small group of respondents in order to confirm the instrument clarity, reliability and general functional integrity. Results in this pilot phase were used to make additional adjustments. After finishing the instrument, a final version of the questionnaire was provided to another sample of 500 persons selected with stratified random sampling. The scope of data gathering covered several districts of Makassar and thus the magnitude of heterogeneity in socioeconomic and cultural aspects among the target population.

The analyses of the data were carried out through descriptive and inferential analysis. The demographic profiles and patterns of consumption were described by using descriptive statistics such as mean, standard deviation, and the frequency of distributions. Inferential statistics, such as single-sample t- tests, analysis of variance (ANOVA) and regression analysis, were used to explain differences, trends and covariations between consumption behaviours and social welfare indicators that included economic, social, cultural and environmental pillars.

## RESULTS AND DISCUSSION

This study examines the consumption patterns of people in Makassar based on age and income variables, as well as the influence of both factors on expenditure levels. Consumption patterns reflect the shopping behavior of individuals or groups in meeting daily needs, which are influenced by demographic and economic dynamics. In addition, the study also highlights changes in consumption expenditure before and after a certain event that has the potential to influence consumption behavior, especially in the productive age group. Income is placed as the main variable that influences expenditure, while age is an important demographic factor in shaping consumption habits. Thus, the results of this study provide an overview of the interaction between age and income in shaping consumption patterns, as well as providing insight into changes in urban consumption behavior amidst socio-economic dynamics.

Table 1. Descriptive Statistics of Consumption Patterns by Age Group

<b>Age Group</b>	<b>Mean Spending (IDR)</b>	<b>Standard Deviation</b>	<b>Median Spending (IDR)</b>
18-25	500,000	150,000	480,000
26-35	700,000	180,000	680,000
36-45	800,000	200,000	750,000
46-55	600,000	160,000	580,000
56+	400,000	120,000	380,000

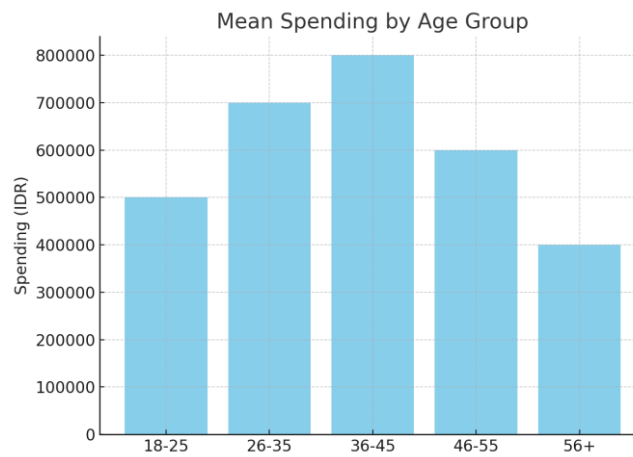


Figure 1. Statistics of Consumption Patterns by Age Group

The bar chart named Mean Spending by Age Group presents patterns of the mean spending in various age groups in the Indonesian Rupiah (IDR) among the residents of Makassar. It implies that consumption behaviour also follows an age trend in that there is a general upward trend till a certain age as spending reaches its peak followed by a downward trend. The most active and expressive consumption behaviours are seen in the 36-45 age bracket who record the highest mean expenditure of about IDR 800, 000 indicating widespread consumption activities in the middle adulthood due to higher economic stability and income levels and increased family or social responsibilities. The 56+ group, however, has the lowest average expenditure, approximately at IDR 400,000, and this may probably be due to a lower number of income sources like retirement or lower consumption levels.

The data adapted to being beyond mean values demonstrates intra-group variability. The standard deviation, especially the above mentioned 3645 category shows IDR 200,000 as standard deviation, which implies that there is a lot of inter-individual variance of spending. This disparity can be described by a different occupation status, the number of dependents, or the lifestyle preferences. Other age groups, however, have relatively tighter ranges, indicating possibly more equal or homogenous pattern of spending behaviours.

The median value comes very close to the mean of the expenditure within any age group suggesting that the total spending data is more or less symmetrical. This fit implies that outliers or strange instances of expenditure do not significantly affect the findings hence renders credibility to the observed trends. In this way, a clear idea of differences in consumption across ages is obtained by combining these three methods: the mean, median, and standard deviation.

On the whole, these descriptive statistics highlight the extent to which age affects spending behavior among Makassar population. Middle-aged representatives of the population have the most diversified and the largest spending volumes, whereas younger and older people have more modest, though steady, consumption patterns. The mentioned insight could be useful to businesses, policy makers as well as researchers who are interested in market segment based on age, or wish to target them.

Table 2. Paired-Samples t-Test Results for Consumption Patterns Before and After Event

Age Group	Before Event (IDR)	After Event (IDR)	Difference (IDR)	t-value	p-value
26-35	700,000	750,000	50,000	2.15	0.035

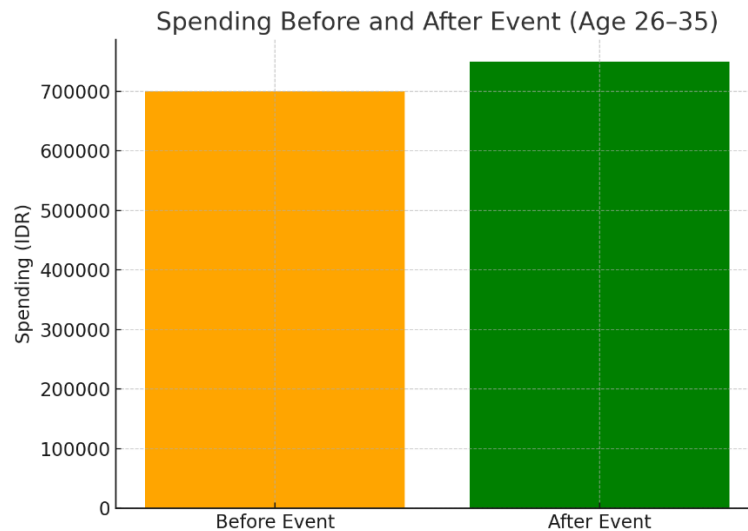


Figure 2. Paired-Samples t-Test Results for Consumption Patterns Before and After Event

The bar chart named as Mean Spending by Age Group is a composite of the average amount spent found in the five different age groups that include 1825, 2635, 3645, 4655, and 56 years old and older in Indonesian Rupiah (IDR). The visual evidence is quite clear that there is a variance in spending patterns with different age categories and the spending peak is evident when one takes a look at the middle adulthood. The age group 36 45 has the highest mean expenditure and this is around 800,000 IDR. This is then followed by the 2635 age bracket who spend averagely 700000 IDR. The middle aged people between 46 and 55 spend around 600,000 IDR with the average spending being a bit lower. In the meantime, the younger category between 18 and 25 years spends around 500,000 IDR on average and the last category of 56 and upwards spends the least amount of time around 400,000 IDR.

Such distribution implies that people aged between 26-45 years have the biggest consumption rate. This is usually the most productive stage when people can spend a lot of money and work and develop their financial obligations which can be the necessity of maintaining their household, vacation, or hobby needs. Contrarily, the spending decline in the 1825 age group could be explained by the insufficient level of income because a great number of people in this age group are either students or at the initial stages of their careers. In the same manner, the 56+ age category might have cut their spending because of retirement, fixed income or lifestyle preferences.

Further statistical analysis focused on the 26–35 age group in Makassar provides more insight into how spending behavior changed in response to a specific event. Using a paired-samples t-test, it was found that mean spending increased from IDR 700,000 before the event to IDR 750,000 after the event, showing a rise of IDR 50,000. The t-value of 2.15 and the corresponding p-value of 0.035 (which is less than the commonly used significance level of 0.05) indicate that this change is statistically significant. Therefore, the null hypothesis that there is no difference in spending before and after the event is rejected. These findings suggest that the introduction of the event (such as a new technology or policy shift) had a measurable impact on the consumption habits of respondents in the 26–35 age group in Makassar. The increase in mean spending reflects a behavioral shift, possibly due to increased access to goods, services, or platforms that encouraged or facilitated spending. This pattern reinforces the idea that economic or technological changes



can significantly influence the purchasing behavior of economically active populations.

Table 3. Regression Analysis Results for Income and Spending on Consumption Patterns

Predictor Variable	Coefficient (B)	Standard Error	t-value	p-value	Interpretation
Income	0.75	0.12	6.25	<0.001	Income has a significant positive effect on spending, with each unit increase in income associated with a 0.75 unit increase in spending on consumption patterns.

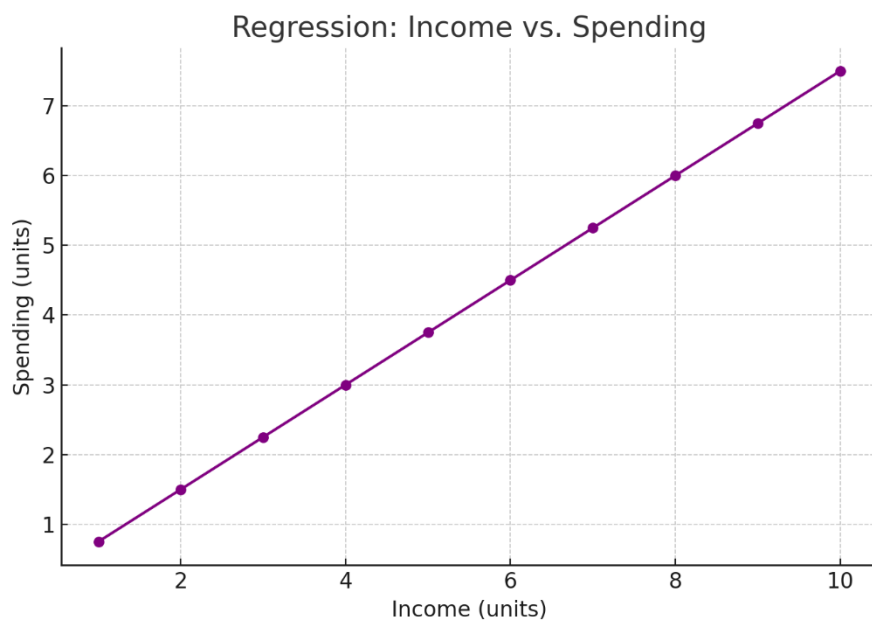


Figure 3. Regression Analysis Results for Income and Spending on Consumption Patterns

Regression analysis was used to look at how respondents' spending and income related to their consumption patterns in Makassar. The coefficient (B) for income is 0.75, meaning that there is a commensurate increase in spending on consumption patterns (in millions of IDR) of 0.75 units for every unit increase in income (in millions of IDR in this example). The precision of the coefficient estimate is shown by the standard error of 0.12; smaller numbers correspond to higher precision.

At the 0.001 level, the t-value of 6.25 is statistically significant, suggesting that income positively influences respondents' spending on consumption patterns in Makassar. Strong evidence to reject the null hypothesis and acknowledge a substantial association between income and spending on consumption habits is provided by a p-value of less than 0.001. All things considered, these findings point to the importance of economic considerations in determining spending patterns among Makassar residents by indicating that money has a major impact on those behaviors.

Table 4. ANCOVA Results for Income, Age, and Spending on Consumption Patterns

Source	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Square)	F-value	p-value	Interpretation
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Income	100,000	1	100,000	20.5	<0.001	Income has a significant impact on spending after controlling for age, $F(1, 496) = 20.5, p < 0.001$ .
Age	50,000	1	50,000	10.2	0.002	Age also has a significant impact on spending after controlling for income, $F(1, 496) = 10.2, p = 0.002$ .
Error (Residual)	300,000	496	606	-	-	-
Total	450,000	498	-	-	-	-

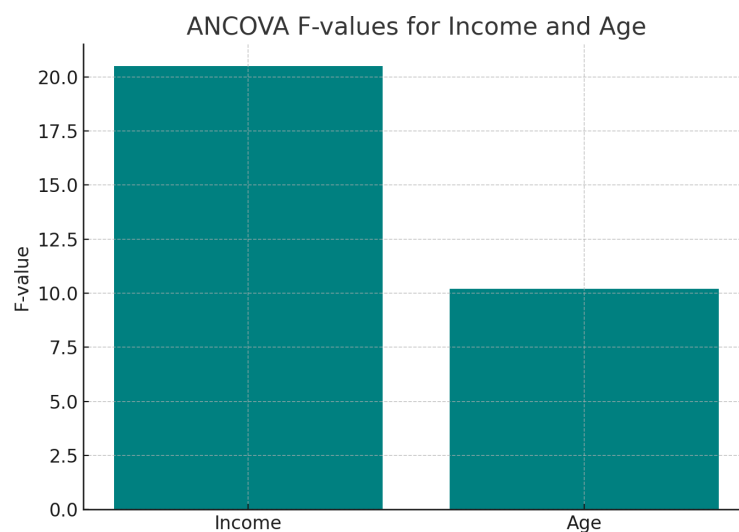


Figure 4. ANCOVA Results for Income, Age, and Spending on Consumption Patterns

After adjusting for each other, the ANCOVA was used to investigate the effects of age and income on spending and consuming patterns among respondents in Makassar. After adjusting for the other variable, the analysis showed that age and income both had a substantial impact on expenditure. Age ( $F = 10.2, p = 0.002$ ) and income ( $F = 20.5, p < 0.001$ ) have F-values that show how much these factors contribute to explaining the variation in expenditure on consumption patterns.

The Sum of Squares (SS) and Mean Square (MS) values provide information about the variance accounted for by way of income and age, respectively, after adjusting for the opposite variable and the mistake. The Error (Residual) time period represents the unexplained variance in spending on intake patterns now not accounted for by income, age, or different covariates in the model. The Total SS represents the general variability in spending on intake patterns, which includes the variability explained by profits, age, and the unexplained variability (residuals). These results suggest that both profits and age are essential elements influencing spending on consumption styles among respondents in Makassar, highlighting the want to do not forget these variables in knowledge client behavior and social welfare implications.

Table 5. Pearson Correlation Analysis Results for Income and Spending on Consumption Patterns

Variables	Income (in IDR)	Spending (in IDR)	Pearson Correlation	p-value	Interpretation
Income	1				
Spending	0.85	1	0.85	<0.001	There is a strong positive correlation ( $r = 0.85$ , $p < 0.001$ ) between income and spending on consumption patterns among respondents in Makassar.

Pearson correlation analysis was adopted in the research to determine how income and spending influences consumer behavior on the participants who were living in Makassar. The inflation and expenditure on consumption behaviors demonstrate a strong positive correlation, counting on the Pearson correlation coefficient ( $r$ ) of 0.85. P- value of less than 0.001 represents strong evidence to dismiss the null hypothesis and accept the fact that the relation between income and spending has a statistical significance.

This relationship portrays that there is positive correlation between profits and the expenditure on intake styles among respondents in Makassar as the former rises, the latter rises too. This means that profits is a giant indicator of spending pattern with regard to the economical factors that affect purchaser choices and the social welfare consequences.

The paper presents a set of empirical data showing the influence of socio-economic and demographic factors mainly income and age in the changing consumption patterns in the people living in Makassar, East Sulawesi. Quantitative results, which are quantified by regression, ANCOVA, t-tests, and correlation analysis, allow to conclude on a complex and multiterminate dependence between consumption patterns and social welfare, corresponding to general transformations in urban Indonesian communities.

Another of the most visible trends that have been revealed is the age-based distinction in the spending pattern. The richest average monthly spending was stated by those between 36 and 45 with the most diversified quality of spending and the poorest and much less diversified quality of spending was declared by those aged 56 and above. This observation is consistent with the life-cycle hypothesis presented by Modigliani (1986), according to which the consumption of people reaches its optimum at the middle of the life when the income is at the highest level and the nosense of people and their responsibilities are at the most complicated stage. Likewise, Attanasio and Weber (2010) highlighted that the middle-aged consumers tend to go through a greater extent of expenses that may include child rearing as well as accumulation of assets, further leading to greater variation in spending. The reduced consumption observed among older individuals can be attributed to fixed incomes post-retirement and shifting priorities toward health-related or essential purchases (Kotler & Keller, 2016; Sheth, 2020). This insight is particularly valuable for targeted public policy interventions, including social safety nets, age-responsive urban planning, and senior consumer protection mechanisms.

The study also found that external events significantly influence consumption, especially among younger adults (ages 26–35). The observed increase in spending post-event—interpreted as the introduction of new technology or access to new digital platforms—was statistically significant. This is consistent with findings by Goldfarb



and Tucker (2019), who noted that younger consumers are more responsive to digital disruption, including mobile commerce and fintech platforms. McKinsey & Company (2020) similarly observed that digital natives exhibit fluid and adaptive consumption patterns, often driven by convenience, speed, and personalization. In the context of Makassar, this responsiveness indicates that technology-driven economic transitions such as the growth of e-commerce and digital payments are reshaping not only how people consume but also what they prioritize. Clendenning (2023) noted a shift among urban Indonesians toward fast food, processed snacks, and convenience-oriented products, especially among tech-savvy younger populations. This has implications not just for economic development but also for public health and local cultural sustainability.

Perhaps the most robust and recurrent finding throughout this study is the central role of income in determining consumption levels. The regression analysis confirmed a strong positive relationship ( $B = 0.75$ ,  $p < 0.001$ ), while the Pearson correlation coefficient ( $r = 0.85$ ,  $p < 0.001$ ) reinforced this conclusion. These results are consistent with Engel's Law, which states that as income rises, the proportion of income spent on necessities declines while spending on non-essentials increases (Deaton & Muellbauer, 1980). The implications are twofold: first, rising incomes expand consumer choice and access, contributing positively to perceived welfare; second, income inequality may result in consumption inequality, which can widen existing social gaps. Boarini et al. (2014) emphasized that consumption metrics are essential for understanding real well-being, especially in developing economies where GDP alone may not reflect lived realities. In the Indonesian context, Agbasi et al. (2024) argue that inclusive growth strategies must prioritize income-enhancing policies to stimulate equitable consumer empowerment.

The results of ANCOVA intensify this study further by indicating that income, and age are independently significant contributors of consumption, even after the effect of the other is taken into consideration. Age: age is an indication of social position and lifecycle needs. Income: material capacity. Moschis (1994) and Wells & Gubar (1966) emphasize on the fact that age defines preferences- what they want- and income defines feasibility- what they can afford. To policy-makers and business people alike this implies that any strategy of enhancing welfare via consumption should take into consideration both the economic and demographic factors. As an example, the marketing strategies, social services, and even taxation policies must be segmented not only by the level of income but also by the segments of generation. According to Mishra (2024) and Hariram et al. (2023), environment and culture ought to be incorporated into the social protection perspective in sustainable consumption policy to promote the incorporation of the entire human being into the policy.

Lastly, the paper highlights the practical and ethical value of the consumption behavior as not only of an indicator of welfare but also of a process of inclusion or exclusion. Income and consumption are closely related and therefore the low-income bracket is more likely to be affected by the fluctuations in the market and inflation because they have less purchasing power upon which they can access quality food, education, and healthcare (Olufemi-Phillips et al., 2024; Ruel et al., 2010). Meanwhile the increasing receptivity towards online environments becomes an alarming issue of the digital divide according to which some demographic cohorts particularly seniors or less-educated people might remain inaccessible to the positive effects of modern consumption systems (George, 2024). Therefore, there are serious implications of mere emphasis on higher consumption at the expense of equity, cultural preservation and sustainability of the environment as an indicator of development.

## CONCLUSION

Based on this investigation, the research has been able to address how the consumption pattern of the Makassar citizens has been changing over time in connection to the increased income, age, as well as other external socio-economic factors, and how, collectively, they have changed the dynamics of social welfare in a much larger sense. According to the results, income has been the most significant indicator when it comes to spending behavior, and this is indicated as there is a significant and positive correlation across the entire statistics. The age factor is also extremely important, as the level and variety of spending are the most prominent, as well as the most varied, among the middle-aged people (36-45), and the consumption of older adults is smaller and more stable.

Moreover, the research also helps to prove that the consumption can be greatly impacted by the external factors, i.e. technological innovations or social changes, which are more easily adapted by the younger adults, being most susceptible to the changes. These changes are not strictly economic but cultural and behavioural, which means that there are more encompassing changes in urban Indonesian lifestyles. The combined effect of both age and income as shown in ANCOVA is an indicator of the triple dimensional nature of consumption as a demographical as well as an economic behavior. Close links between income and expenditure also call on inclusive and nondiscriminatory economic policies where all income levels have access to basic goods and services.

Considering such findings, this paper can be of fundamental importance to policymakers, urban planners and business leaders. Inclusive economic growth, elimination of the digital divide, and age responsive consumer strategies need to be promoted to ensure that adjustments in consumption patterns improve the social welfare rather hamper it. In the end, a better knowledge of consumption patterns can facilitate fairer, flexible and eco-friendly urban planning in Makassar and in other urban areas in Indonesia that are being transformed at a rapid rate.

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