THE CONTRIBUTION OF INCOME FROM FEMALE WORKERS IN THE INFORMAL SECTOR TO HOUSEHOLD EXPENDITURE IN SOUTH KUTA DISTRICT

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Abstract: This study focuses on quantifying the income provided by female workers in the informal sector for household expenditure, with a case study in South Kuta District. The data used in this study are primary data collected from 97 respondents selected as the research sample. The sampling method employs a non-probability sampling technique, specifically purposive sampling. The study applied descriptive statistics and multiple linear regression to analyze the data. The results of the study indicate that the variables of women's income in the informal sector, the number of family dependents, the husband's income, and the allocation of time for mothers to work simultaneously exert a positive and statistically significant influence on household expenditure. The contribution of income from female workers in the informal sector to household expenditure reached 83,59 percent, indicating that the income of women plays a crucial role in supporting the family economy.

Keywords: Income contribution, women's role in the economy, informal sector

INTRODUCTION

Employment development is a crucial element in national development, aiming to produce high-quality human resources (Tyas Wandaweka & Purwanti, 2021). This aspect is included in the sustainable development goals, especially in the eighth goal of the SDGs (Sustainable Development Goals), this addresses the promotion of inclusive and sustainable economic growth, the generation of full and productive employment, and the assurance of decent work opportunities for all segments of society. However, in many developing countries, including Indonesia, the challenges to achieving this goal are still significant. One of the main challenges is the high proportion of workers in the informal sector.
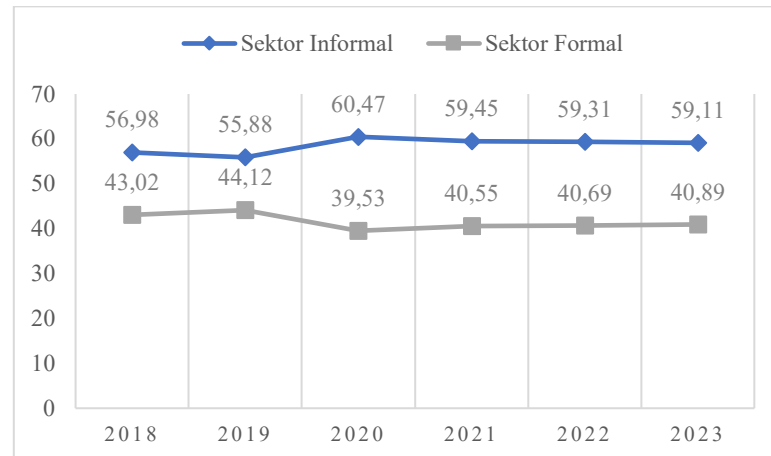
Informal sector employment has been recognized as a normal phenomenon in various developing countries, including Indonesia (Harahap & Agusta, 2018). The prevalence of workers in the informal sector is particularly struggle to offer adequate education, training, and infrastructure. Furthermore, the strong demand for affordable goods and services, along with economic difficulties and poverty, plays a significant role in growth of the informal economy (Djidonou & Foster-McGregor, 2022). In Indonesia, informal sector workers comprise the largest part of the workforce, contributing significantly to the country's economy. This sector also serves as an alternative option for individuals seeking business opportunities.

Workers in the informal sector are often associated with small-scale economic activities and have low productivity and profits (Santi & Tisnawati, 2023). Research by Sultana et al. (2022) suggests that workers in the informal sector often accept low wages

as they lack adequate job protection. This is because their socioeconomic conditions do not allow them to wait long for a job in the formal sector. However, access to formal employment is often difficult to obtain, especially for those with limited skills, education, or social networks (Birgitta, 2021).

The Central Statistics Agency (BPS) in 2023, through the National Labor Force Survey (Sakernas), reported that 59,11% of the population worked in the informal sector in Indonesia. Meanwhile, 40,89% of the population worked in the formal sector.

Figure 1. Percentage of Working Population by Sex and Status Formal-Informal Employment Status in Badung Regency, 2021-2023 (Percent)

Source: Employment Statistics of Badung Regency (2024)

When viewed based on gender, the informal sector is more dominated by women. Women working in the informal sector in Indonesia are 64,25%, while 35,75% work in formal sector jobs. Meanwhile, the percentage of men in the formal and informal employment sectors is nearly balanced, with 55,81% of men working in the informal sector and 44,19% working in the formal sector.

Women, particularly in developing countries such as Indonesia, face challenges in accessing formal sector employment. Women are also often faced with social norms that dictate the type of work they will pursue. (Das & Kotikula, 2019). They are required to balance responsibilities at work with household duties, so time flexibility is important to them. Therefore, women tend to choose jobs that allow for flexible working hours, as is often found in the informal sector.

The informal sector, particularly in South Kuta District, plays a significant role in absorbing labor. Many people in South Kuta District, particularly women, are engaged in various informal jobs, including retail trade in food and beverages, transportation rental activities, and other small-scale businesses. The role of the informal sector in the local economy is very significant, especially in supporting household income.

South Kuta District out as a prominent tourism hub in Badung Regency and Bali, having made a substantial impact on the Regional Original Income (PAD) prior to the pandemic (Sarmita, 2022). This district experienced the highest population growth rate among its counterparts, reaching 5%. It is home to several renowned tourist attractions, including Garuda Wisni Kencana (GWK), Nusa Dua, Uluwatu, Pandawa Beach, Jimbaran,

and Tanjung Benoa, makes South Kuta the main magnet for tourists. The flow of tourist arrivals not only drives the formal sector, such as hotels and restaurants but also drives the growth of the informal sector (Fathiri & Zulfanetti, 2021). This opens up broad economic opportunities, including through the emergence of food and beverage traders, transportation service providers, and various other supporting services.

METHOD

This research utilizes a quantitative, associative design to investigate the relationship between two or more variables. Additionally, this study uses a descriptive approach to assess the income contribution of female workers in the informal sector.

This study examines the income of informal sector female workers as the dependent variable, while the number of family dependents, husband's income, mother's working time allocation, and household expenses function as independent variables. The research data were collected by distributing questionnaires to 97 respondents, the number of whom was determined based on the Lameshow formula. The criteria for respondents in this study were women who worked in the informal sector in South Kuta District and were married.

The analysis of data was performed through multiple linear regression, which began with testing classical assumptions, including normality, multicollinearity, and heteroscedasticity tests, to ensure model validity. Furthermore, a model feasibility test was conducted using the F-test to assess the overall significance of the model, as well as a t-test to examine the partial effect of each independent variable on the dependent variable. In addition, contribution calculations were conducted to determine the extent to which informal sector women's income contributes to household expenditure.

RESEARCH RESULTS AND DISCUSSION

Descriptive Statistical Analysis

The first step in the analysis involves multiple linear regression, which aims to determine the influence of independent variables on dependent variables.

Table 1. Results of Multiple Linear Regression Analysis

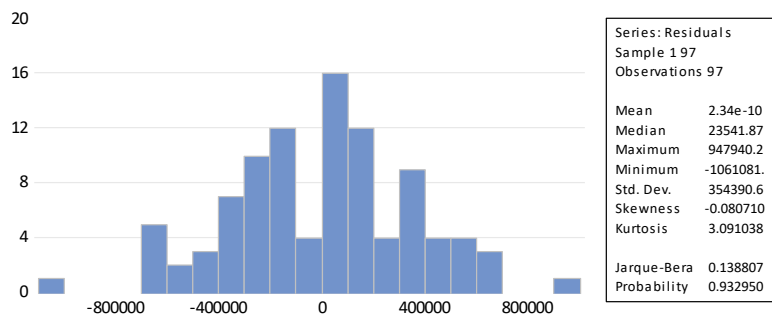| Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	607046.3	185972.3	3.264176	0.0015
X1	0.362702	0.046686	7.769024	0.0000
X2	160851.1	60413.70	2.662494	0.0092
X3	0.163678	0.064475	2.538628	0.0128
X4	53075.15	19811.64	2.678989	0.0087

Source: Primary Data Processing Results, 2025

Based on the results of multiple linear analysis, the following equation can be formulated:

$\hat{Y} = 607046{,}3 + 0{,}362702X1 + 160851{,}1X2 + 0{,}163678X3 + 53075{,}15X4 \ldots\ldots\ldots\ldots\ldots\ldots(1)$

Then, to carry out the classical assumption test, you need to carry out a normality test, a multicollinearity test, and a heteroscedasticity test.

1) **Normality Test**

| Series: Residuals |
| Sample 1 97 |
| Observations 97 |
| |
| Mean   2.34e-10 |
| Median   23541.87 |
| Maximum   947940.2 |
| Minimum   -1061081. |
| Std. Dev.   354390.6 |
| Skewness   -0.080710 |
| Kurtosis   3.091038 |
| |
| Jarque-Bera 0.138807 |
| Probability 0.932950 |

Source: Primary Data Processing Results, 2025

The Jarque-Bera test probability value of 0,138807, which is much greater than the significance level of 0,05, indicates that the residual data is normally distributed. This suggests that there is no deviation from the normality assumption, so the null hypothesis (H_0) stating that the residuals are normally distributed cannot be rejected.

2) **Multicollinearity Test**

Table 2. Multicollinearity Test Results

Variable	Uncentered VIF	Centered VIF
C	25.599	NA
Income of female workers in the informal sector (X_1)	6. 930	1.408
Number of family dependents (X_2)	8.745	1.395
Husband's income (X_3)	7.877	1.162
Mother's work time allocation (X_4)	19.911	1.029

Source: Primary Data Processing Results, 2025

The results of the multicollinearity test, using the Variance Inflation Factor (VIF), show that the Centered VIF values for all independent variables (X_1, X_2, X_3, X_4) are below 10 (X_1 = 1,408, X_2 = 1,395, X_3 = 1,162, X_4 = 1,029). This indicates that there is no multicollinearity problem in the regression model.

3) **Heteroscedasticity Test**

Table 3. Heteroscedasticity Test Results

F-statistic	0.291715	Prob. F(4.92)	0.8827

Obs*R-squared	1.214869	Chi-Square Prob. (4)	0.8756
Scaled explained SS	1.153936	Chi-Square Prob. (4)	0.8856

Source: Primary Data Processing Results, 2025

The heteroscedasticity test result presented in table 3. show that the probability value of Obs*R-square (0,8756) exceeds the significance level of 0,05. Therefore, it can be concluded that the regression model does not exhibit heteroscedasticity symptoms.

F Test

Table 4. F Test Results

Information	Value
F-statistic	41.16528
Prob(F-statistic)	0.000000

Source: Primary Data Processing Results, 2025

Based on the test results, it is known that the probability value of the F- statistic is 0,000000 <0,05, so it can be concluded that simultaneously, the variables of income of female workers in the informal sector, the number of family dependents, husband's income, and the allocation of time for working mothers affect household expenditure.

T-test

Table 5. T-test Results (Hypothesis Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	607046.3	185972.3	3.264176	0.0015
X1	0.362702	0.046686	7.769024	0.0000
X2	160851.1	60413.70	2.662494	0.0092
X3	0.163678	0.064475	2.538628	0.0128
X4	53075.15	19811.64	2.678989	0.0087

Source: Primary Data Processing Results, 2025

Based on the t-test results, the relationship between the variables can be explained as follows.

1) At α = 0,05, n = 97, k = 4, and df = (n - k) = 93, the t-table value obtained is 1,661. Based on the results of this test, it shows that the informal sector female workers' income variable (X1) has a t-calculated value (7,769) > t-table (1,661) with a probability value of 0,000 < 0,05, thus H_0 is rejected and H_1 is accepted. This means that the income of informal sector female workers has a positive and significant partial effect on household expenditure in South Kuta District.

2) At α = 0,05, n = 97, k = 4, and df = (n - k) = 93, the t-table value obtained is 1.661. Based on the test results, it shows that the variable number of family dependents (X2) has a t-calculated value (2,662) > t-table (1,661) with a probability value of 0,009 < 0,05, hence H_0 is rejected and H_1 is accepted. This means that the number of family dependents has a positive and significant partial effect on household expenditure in South Kuta District.

3) At α = 0,05, n = 97, k = 4, and df = (n - k) = 93, the t-table value obtained is 1.661. Based on the test results, it shows that the husband's income variable (X3) has a t-calculated value (2,539) > t-table (1,661) with a probability value of 0,013 < 0,05, so H_0 is rejected and H_1 is accepted. This means that the husband's income has a positive and significant partial effect on household expenditure in South Kuta District.

4) At α = 0,05, n = 97, k = 4, and df = (n - k) = 93, the t-table value obtained is 1,661. Based on the test results, it shows that the mother's work time allocation variable (X4) has a t-calculated value (2,679) > t-table (1,661) with a probability value of 0,009 < 0,05, so H_0 is rejected and H_1 is accepted. This means that the mother's work time allocation has a positive and significant partial effect on household expenditure in South Kuta District.

Discussion of Research Results

Contribution of income of female workers in the informal sector to household expenditure in South Kuta District

The contribution referred to in this study is the income contribution of 97 female workers in the informal sector. According to the findings of the questionnaire, these workers earn their entire income from work in the informal sector. This is due to various factors, one of which is the limited time that some women have, as they must care for children and households, making it impossible for them to work for extended periods.

To determine the value of the contribution of female workers' income in the informal sector to household expenditure, the following calculation is used:

$$P = \frac{Pi}{Pt} \times 100\% \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(2)$$
$$= \frac{176.460.000}{214.670.000} \times 100\%$$
$$= 83.59\%$$

Information:

P = Percentage of contribution

Pi = Income of female workers in the informal sector in one month

Pt = Household expenditure for one month

Based on the calculation results, the contribution of female workers' income in the informal sector to household expenditure reached 83,59%. According to the assessment criteria in the study by Lesi et al. (2024), this value is categorized as very high because it exceeds 75%. Thus, the contribution of income from female workers in the informal sector has a very large influence on household expenditure in South Kuta District.

The results of this calculation are consistent with the findings of the multiple linear regression analysis, which shows that the income of female workers in the informal sector (X1) has a positive and significant influence on household expenditure (Y). The coefficient of regression for this variable is 0,362702, and the associated probability (Prob.) is 0,0000, reflecting a very high significance level.

This high contribution reflects the crucial role of women in supporting the family economy. Household consumption expenditure demonstrates the behavior and purchasing power of families, and it is also a key indicator of economic activity (Madudova & Corejova, 2024). With the ability to manage finances effectively, households are better equipped to invest in various opportunities that have the potential to increase their future income (Andiena Nindya Putri et al., 2024).

The influence of income of female workers in the informal sector on household expenditure in South Kuta District

The data from the test yielded a coefficient value of 0,362702 for the income of informal sector female workers on household expenditure, indicating a positive value with a p-value of 0,0000 (<0,05), which means that H_0 is rejected. This shows that the hypothesis that the income of informal sector female workers contributes positively and significantly to household expenditure in South Kuta District is proven.

The outcomes of this research align with those of Malik et al. (2021), which found a significant positive relationship between income and household expenditure, suggesting that expenditure increases with rising income. A strong correlation exists between household income and expenditure patterns, as demonstrated by research conducted by Zakaria et al. (2024). Households with higher incomes generally allocate a smaller portion of their income to basic needs, such as housing and food, allowing them to set aside more money for savings and non-essential expenses. In contrast, households with lower incomes tend to allocate a larger portion of their income to daily needs, which limits their opportunities to invest and achieve financial stability.

The influence of the number of family dependents on household expenditure in South Kuta District

The test results yielded a coefficient value of the number of family dependents on household expenditure with a positive value of 160851,1 and a probability value of 0,0092 (<0,05), indicating that the null hypothesis is rejected. This shows that the hypothesis that the number of family dependents has a positive and significant effect on household expenditure in the South Kuta District is proven.

This study aligns with research conducted by Martiana & Dewi (2022), which states that the more dependents a head of household has to support, the higher the household expenditure will be, in proportion to the increasing number of dependents. The growing number of family dependents will increase the possibility of someone entering the workforce (Hakimatus Tsaniyah & Sugiharti, 2021).

Families with many dependents will struggle to manage their household expenses effectively. According to Irmawati and Asrahmaulyana (2021), large families often struggle

to meet their educational needs. On the other hand, if the number of family members is small, they will pay more attention to the needs of their family members in all aspects, including clothing, food, and education.

The influence of husband's income on household expenditure in South Kuta District

The test results yielded a coefficient value of 0,163678 for the relationship between the income of informal sector female workers and household expenditure, with a probability value of 0,0128 (< 0,05), indicating that the null hypothesis (H_0) is rejected. This shows that the hypothesis that the husband's income contributes positively and significantly to household expenditure in the South Kuta District is proven.

This research is supported by the results of studies as well as those of Saskara (2018), which show that the husband's income plays a significant role and has a positive impact on household expenditure. With good management between the husband's income and family expenditure, family welfare can increase significantly, especially when the wife is also actively working in the informal sector with a high level of work intensity.

The influence of working mothers' time allocation on household expenditure in South Kuta District

The test results yielded a coefficient value of the allocation of working mothers' time to household expenditure with a positive value of 53075,15, accompanied by a probability value of 0,0087 (<0,05), suggesting the rejection of the null hypothesis (H_0). This suggests that the hypothesis regarding the allocation of working mothers' time indicates a positive and substantial impact on household expenditure in the South Kuta District.

This study aligns with research conducted by Surya & Saskara (2024), which concluded that the allocation of working mothers' time contributes positively and significantly to household expenditure. This shows that the more time mothers allocate to work, especially in the informal sector, the greater the contribution of income that can increase the household's ability to meet consumption needs and other expenses.

CONCLUSION

Consedering the analysis results provided, the following conclusions follow:

1) The contribution of female workers' income in the informal sector to household expenditure in South Kuta District reached 83,59 percent. Based on the contribution assessment criteria, this figure falls within the very high category (>75%), indicating that income obtained from the informal sector plays a significant role in helping families and individuals meet their daily needs and makes a substantial contribution to household expenditure.

2) In the South Kuta District, the income of women employed in the informal sector, the number of dependents in the family, the income of the husband, and how the mother allocates her working hours all collectively (simultaneous) have a significant impact on household expenditures.

3) In the South Kuta District, the income of female workers in the informal sector, the number of family dependents, the husband's income, and the distribution of the mother's working time each have a positive and significant influence on household expenditures when considered individually (partial).

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