The Effect of the Length of Business and the Number of Family Members on the Proportion of the College Students in Karaban Village

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Abstract. The financial ability of parents influences the level of education of their children. Karaban Village is a center for gatherers and craftsmen of the Kapok mattresses whose income influences the sustainability of children's education. This study aims to determine the effect of the length of business and the number of family members on the proportion of college students. This study used a quantitative design with data collection techniques through questionnaires distributed to 40 Kapok entrepreneurs as samples. Data were analyzed using a multiple linear regression test with SPSS 25. The results show that 1) Sig. value of $0.047 < \alpha\ 0.05$, showing a significant effect between the length of business on the proportion of college students; 2) Sig. value of $0,000 < \alpha\ 0.05$, showing the effect of the number of family members on the proportion of college students.

Keywords: length of business · number of family members · college proportion · kapok mattress craftsmen

1 Introduction

One of the government policies to improve the quality of human resources is improving the quality of education. The most common education in society is formal education because the demands of the times require every individual to compete so that life in society advances. Previous research explains that the factors that cause children's high interest in continuing their education at tertiary institutions are internal factors, such as social motives, and external factors, such as the role of the family, colleagues, and mass media [1]. Family support is one of the factors in the progress of science and culture in children [2].

The level of family education (children) is better than the education of the head of the family. This progress results from parents' efforts as kapok craftsmen whose business continues to grow and earn decent income because the demand for production continues to grow, and there is no difficulty in providing raw materials, processing, capital, labor, and marketing. Education in Karaban Village is also proven by the number of university

students, which always increases yearly [3]. The increase in number is related to the parents' hard work in running the craft business of the kapok mattresses occupied by the heads of the family. Previous research shows that parents with a business will tend to positively impact family members' education, especially younger ones [4]. Business is established so children or younger generations can continue the business of parents or succession [5]. Some studies say children's education will improve if parents are involved [6].

The number of families and income factors from the kapok mattress industry itself influences the proportion of children's education at the tertiary level. A family usually has different dependents and welfare levels [7]. Another factor in the proportion of children's education is the income and time of business. Income is the amount the company receives from its activities, mainly product sales and/or customer services [8]. The length of business is the duration of business operation [9].

Microbusinesses dominate Indonesia. The number of micro-entrepreneurs needs to be considered because their contributions to the country's economy are significant. One of the Small and Medium Enterprises (UKM) that has potential in Indonesia is the kapok mattress business.

Pati is one of 35 Central Java regions with great potential from Kapuk Mattress, one of which is in Karaban Village, Gabus District. The heads of the kapok mattress businessman's family are very concerned about their children's education level. It is evidenced by the number of children of the kapok mattress craftsmen who went to college. Based on the background, the researchers are interested in determining the effect of the length of business and the number of family members on the proportion of the kapok mattress craftsmen's children in Karaban Village who goes to college.

2 Method

This study used a descriptive method with a quantitative approach. The place of the study was Karaban Village, Gabus District, Pati Regency, Central Java. The study was conducted on Kapuk mattress craftsmen in Karaban Village. The study took place in 2021. The observation was carried out by looking at and observing business activities, the number of families, and the level of education of craftsmen's children. The population of this study was 40 kapok mattress craftsmen in Karaban Village. Data analysis was carried out using multiple linear regression of the SPSS 25 application.

3 Result and Discussion

3.1 Results

Research Variable Description
This study consisted of two independent variables: business duration and the number of families. While the dependent variable is college children. Based on data collected using a questionnaire from 40 respondents, descriptive data results were obtained, as in Table 1.

Table 1. Descriptive Data of Research Variable

	N	Minimum	Maximum	Variance	Mean	Std. Deviation
Income	40	25000000	95000000	32.871	73000000	0.907
Length of Business	40	7	35	14.53	28	5.733
Number of Family Members	40	1	5	2.18	4	0.948
The proportion of College Students	40	0	5	1.53	5	0.905

Source: Primary Data (Data processed)

Based on Table 1, the lowest income is IDR 25000000, while the highest is IDR 95000000. From the length of the business, the most recent has been operating for seven years, while the oldest for 35 years. From the number of family members, families have at least one member and at most five members. Based on the proportion of college students, there are five.

Results of Multiple Linear Regression Analysis of Research Variables
This study includes the proportion of college children (the dependent variable), the number of family members, and the length of business (the independent variable). Based on the results of data processing through SPSS, the following regression results are obtained.

The normality test using Kolmogorov-Smirnov obtained an Asymp Sig. (2-tailed) value of 0.574. This value is more than 0.05, so the normality test is assumed to be normally distributed (Table 2).

Based on Table 3, the significance value obtained the linearity test value of the length of the business variable to the proportion of college students at 1,132. Because this value < F table (2.87), the relationship between the length of business (X1) and the proportion

Table 2. One-sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	,63879503
Most Extreme Differences	Absolute	,124
	Positive	,076
	Negative	-,124
Kolmogorov-Smirnov Z		,782
Asymp. Sig. (2-tailed)		,574

a. Test distribution is Normal. b. Calculated from Data.

Table 3. Summary of Linearity of Research Variables

Variable	Nilai Sig.	F table	Linearity
Length of Business	1.132	2.87	Linear
Number of Family Members	0.834	2.87	Linear

of college students (Y) is declared linear. The length of business for the proportion of college students is 0.834. Because this value < F table (2.87), the relationship between the length of business (X1) and the proportion of college students (Y) is declared linear.

Multicollinearity Test Results
Based on Table 4, the VIF value on all independent variables is smaller than 10 and the tolerance value is more significant than 0.10, so it can be concluded that the regression model does not have multicollinearity. In other words, the two variables do not correlate (the multicollinearity assumption test is met).

Heteroscedasticity Test Results
The test results showed the sig (2-tailed) value on the length of the business of 0.596 > 0.05, and the variable number of families showed the same result, 0.984 > 0.05. Then, it can be concluded that there is no heteroscedasticity in the regression model (Table 5).

Multiple Linear Regression Results
Based on Table 6, a constant value (a) is 0.566, which means that the length of the business variable (X1) and the number of family members (X2) are equal or constant. The value of the regression coefficient in the length of the business variable (β1) is 0.039. This value means that if the length of the business variable (X1) has increased by 1 unit, then the proportion of college students (Y) will experience an increase of 0.039. The value of the regression coefficient in the variable number of family members (β 2) is 0.698. This value means that if the variable number of family members (X2)

Table 4. Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,566	,321		1,765	,086		
	Number of Family Members	,698	,114	,759	6,105	,000	,870	1,149
	Length of Business	-,039	,020	-,244	-1,963	,057	,870	1,149

a. Dependent Variable: Proportion of college students

Table 5. Heteroscedasticity Test

Model		Unstandardized coefficients		Standardized coefficients	T	Sig.
		B	Std. Error	Beta		
1	(constant)	,052	,184		,284	,778
	Length of Business	,006	,011	,085	,535	,596
	Number of Family Members	,160	,066	,388	2,435	,984

A. Dependent variable: iabs res

has increased by 1 unit, then the proportion of college students (Y) will experience an increase of 0.698.

T-Test Result
Based on the calculation, it can be concluded that the significance value obtained is $0.047 < 0.05$. Because the value of t-count > t-table and sig. Shows a value of less than $\alpha = 0.05$, then H01 is rejected and Ha1 is accepted. There is a significant effect of the length of the business on the proportion of college students with a significance of $0,000 < 0.05$. Because of the value of t-count > t-table and sig. Shows a value of less than $\alpha = 0.05$, then H02 is rejected and Ha2 is accepted. It shows the significant influence of the length of the business on the proportion of college students.

Simultaneous Significance Testing (F-Test)
Based on the test results, the Fcount value is 18,870. The Ftable value with the DF Pembatan (DF1) = 3, DF denominator (df2 = n-df1-k) = 36, so the Ftable is 2.87, and the significant value in the F test is 0,000. Because of Fcount > Ftable and Sig. $< \alpha$

Table 6. Multiple Linear Regression Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,566	,321		1,765	,086
	Length of Business	,039	,020	,244	1,963	,047
	Number of Family Members	,698	,114	,759	6,105	,000

a. Dependent variable: Proportion of College Students

Table 7. Simultaneous Significance Testing (F-Test)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16,061	2	8,030	18,670	,000[b]
	Residual	15,914	37	,430		
	Total	31,975	39			

a. Dependent Variable: Proportion of College Students. b. Predictors: (Constant), Length of Business, Number of Family Members

Table 8. Coefficient of Determination (R^2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,709[a]	,502	,475	,656

a. *Predictors: (Constant),* Length of Business, Number of Family Members

(0.05), H0 is rejected, and Ha is accepted. It means that the length of the business and the number of family members simultaneously significantly affect the proportion of college students (Table 7).

Result of Coefficient of Determination

Based on the summary model table, the R Square value is 0.475, so it can be concluded that the length of business and the number of family members affects 47.5% of the proportion of college students. In comparison, the remaining 54.2% is affected by other variables not included in the study (Table 8).

3.2 Discussion

Many studies show the importance of the correlation between family, parents, and schools in children's education [10]. Families have a role in achievement, school improvement, and the democratization of school governance of their children [11]. According to previous research, children with a business family background will be more motivated in education [12]. So it can be assumed that families with a business will have children with a higher proportion of pursuing study to college.

This study's results indicate an effect of the length of business on the proportion of the children of the kapok mattress craftsmen in the Karaban Village who go to college. A significance value of $0.047 < \alpha\ 0.05$ is obtained. Because the value of t count > t table and sig. Shows a value of less than $\alpha = 0.05$, then H01 is rejected and Ha1 is accepted. It shows a significant effect of the length of business on the proportion of college students.

The length of the business variable correlates with business income. According to [13], the length of the business has a positive and significant relationship with income.

It means that the older the business, the greater the income. The results of this study support the research results by [14], which concludes that the length of the business has a positive and significant relationship with income. Which concludes that the length of business has a positive and significant relationship with income. Entrepreneurs with the longest business length have more business experience than those with a short business length. Based on [15] research on the influence of parents' income on increasing children's education in the village of Kemiri Paguat, parents' income simultaneously affects the improvement of children's education in the village. [16] found the tendency of parents whose socioeconomic status is high to choose an academic level of education for their child's further study. Individual economic status is one of the factors that cause individuals to have the motivation to receive higher education, such as in an academy or university. This study also shows the effect of the number of family members on the proportion of the children of the kapok mattress craftsmen in the Karaban Village who go to college. Research shows that the regression coefficient value of the number of family members is 0.698. The value of the t count is 6.105, with the t table ($\alpha = 0.05$, df1 = 3, df2 = n-df1-k = 36) being 1,688. Positive values indicate that the number of family members (X2) has a relationship that is in the same direction as the proportion of college students (Y). The significance value obtained is 0,000 < α 0.05. Because the value of t count > t table and sig. Shows the value of less than $\alpha = 0.05$, H02 is rejected and Ha2 is accepted. It shows a significant effect of the number of family members on the proportion of college students.

According to [17], a person's socioeconomic status is seen by the number of family members, the same culture, which determines the rights and obligations of citizens, permanence, and signs/symbols that are characteristic. It aligns with [18] research, which finds that the socioeconomic factors of the family (parental education, parental work, parents' income, number of siblings, and the average income of siblings) have a significant effect on learning achievement. According to [19], parents' education level also affects the achievement gap in children. One factor that influences a person to continue to college is the existence of achievement. According to [20], learning motivation affects the interest of private vocational school students in Banjarmasin to continue their education to Accounting undergraduate degree, with t-value of 6,501. In the results of this study, learning achievement is seen from ranking in class. This achievement influences interest in continuing education to college and correlates with the family's socioeconomic conditions, such as the number of family members. A family business is a specific category because its characteristics are owned and managed by family members. Family members are involved in the operation and ownership of capital. Business families are generally successful and not only aimed at profits but also respect humans [21].

4   Conclusion

This study shows the Sig. Value of 0.047 < α 0.05, so the length of business has a significant effect on the proportion of college students. In the number of family members, the Sig. Value is 0,000 < α 0.05, which shows the effect of the number of family members on the proportion of college students.

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