

Economic Profile and Economic Well-Being Among Rubber Farmers in Muar, Johor

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Abstract

This quantitative study aims to examine rubber farmers' socio-economic profile and economic well-being in Muar Johor, Malaysia. Specifically, the farmers' level of economic well-being index scores were measured with two indicators: financial well-being and financial management. A total of 192 respondents in Lenga and Pagoh were chosen via purposive sampling. Resultantly, major finding shown that most of small rubber farmers struggled to manage their finances, expenses, budgets, and savings and experienced low-income satisfaction and financial resilience. Small rubber farmers also encountered challenges in generating a sustainable income following their heavy reliance on rubber prices, climate change, and the absence of income diversification opportunities. Given the decrease in rubber commodity prices every few years, economic development programmes, modernisation and technology use, side job opportunities, and access to alternative crops have been initiated to enhance small rubber farmers' economic well-being.

Keywords: Socio-economic profile, economic well-being, rubber smallholders, financial well-being, financial management

INTRODUCTION

As one of the key economic sources in Malaysia, the rubber industry offers employment opportunities as rubber plantation owners, rubber tappers, and general rubber plantation workers to over 150,000 people. An individual who owns rubber plantations and prepares them for tapping is known as a plantation owner. Meanwhile, general rubber plantation workers care for these plantations by planting new trees and maintaining existing ones. The sap from rubber trees is collected by rubber tappers (Chang et al., 2021). This industry also provides work opportunities in rubber production and the manufacturing of rubber products (tires, gloves, and other rubber-based products). Such industrial opportunities provide many families with direct income and job security and indirect employment (transportation and logistics) and mitigate poverty in rural areas (Zainuddin, 2022) to boost the Malaysian economy. Individual well-being is significantly influenced by socioeconomic and financial aspects. Nevertheless, the absence of financial management, budget, records, or savings, which deters small rubber farmers from experiencing economic well-being and stability, remains relatively unaddressed. Small rubber farmers who fail to practice good financial management may struggle to pay debts, save money for emergencies or future needs, and manage their finances amidst economic crises or unfavorable weather. Hence, this study aimed to determine the extent to which Muslim small rubber farmers with low income (on average) experience economic well-being. Brambila- Paz (2017) highlighted the effect on demographic household composition, economic well-being, and the likelihood of being poor or falling into poverty. Following Hassan et al. (2017), who explored farmers' and smallholders' well-being and the associated indicators that form low-income households' perspective in rural Kedah, an increase in income subsequently elevated individual well-being. Many low-income households that engage in agency-led socio-economic development programmes demonstrated increased income and living standards. All the respondents conceded that an increase in household income improved their living standard, well-being, and quality of life.

Yusof, Ali and Kamarudin's (2014) work on subjective well-being from economic and non-economic viewpoints analysed the subjective well-being of farmers in the rice growing areas around the state of Perlis and its key determinants. Resultantly, non-economic aspects of health, education, and society were as integral to explaining well-being as their economic counterparts. The level of subjective well-being of rice farmers in Perlis was considered a construct with the second-level arrangement using four sub-constructs: economy, health, education, and society. As each sub-construct was characterised by specific items, the fundamentals of non-economic factors must be extensively examined to optimise social well-being.

From a scholarly perspective, small rubber farmers' level of economic well-being was determined using the family economic well-being index. Mahdzan et al. (2020) claimed that financial well-being includes self-satisfaction with their current financial situation and personal views on future financial circumstances. Thus, financial well-being is a subjective measure of one's current and future situations. This concept could lead to the attainment of expected living standards and financial freedom. Financial management, the second indicator for the family economy domain, denotes actions and attitudes that alleviate financial costs, ensure sufficient funds, and involve financial flow management, planning, control, and monitoring (fund-related opinions and uses). In this context, financial management entails skills in managing expenses, establishing long-term financial plans, assessing investment risks and opportunities, and ensuring fund management efficiency in every aspect of life.

The current study findings could facilitate the stakeholders (ministries or agencies) involved with small rubber farmers to develop an intervention plan that increases their economic well-being. This empirical work potentially improves the Malaysian Rubber Council's competence and capacity in planning and implementing relevant programmes, activities, and training sessions for small rubber farmers following scientific outcomes.

LITERATURE REVIEW

Financial Well-being

According to the Islamic scope, property and finance are a tool to ensure the comfort and survival of the world. The life of the world needs to be fulfilled and responsible for achieving the hereafter. Therefore, good management can guarantee the survival of human life in family, society and thus gain blessings and blessings in life. In addition to the needs of the world, the main goals to be achieved are certainly the success of the afterlife.

Financial well-being is a key factor in assessing one's well-being (Paim et al., 2004) and quality of life (Sabri & Zakaria, 2015). Joo (2008) defined financial well-being as the state of an individual who deems his financial status healthy. In other words, financial well-being subjectively measures people's financial situation. Hayhoe and Wilhelm (1998) also characterised financial well-being as an individual's perception or assessment of their economic circumstances based on wants and needs. This concept explains individuals' or families' financial position in terms of satisfaction or happiness. Overall, financial well-being denotes a healthy, happy, and worry-free financial state, which results from the subjective assessment of a financial situation.

The skills to manage, plan, control, and achieve satisfaction with a financial situation by managing cash, credit, retirement, savings, risk, income adequacy, personal financial management, and spending ability implies financial well-being. One's ability to obtain financial resources amidst emergencies and meet present and future needs and wants (including old age) also denotes financial well-being. In this context, financial well-being is integral to achieving financial stability and freedom.

Ghazali et al. (2022) asserted that financial well-being involves people's ability to manage their financial future and make decisions that improve their quality of life. Based on Mokhtar and Husniyah (2017), financial well-being and state would impact individuals' and families' efficient financial management. The study revealed a reduction in financial stress, a conducive work environment, and improved financial well-being among people who practice effective financial management. Research conducted by Silaban, Satmoko and Prayoga (2021) found that rubber tapper households from PT Perkebunan Nusantara IX Kebun Batujamus, Kuto Village, Kerjo Sub-district and Karanganyar Regency, Indonesia used multiple livelihood strategy, which was combining the on-farm income and off-farm income to achieve financial well-being.

In line with Bailey et al. (1998), Britt et al. (2016), and Delafrooz and Paim (2011), the financial stress or pressure resulting from a decrease in people's financial satisfaction could affect their financial well-being (Ab Rahman et al. 2020). Meanwhile, Hayhoe and Wilhelm (1998) outlined financial well-being as people's perception or assessment of their economic situation or level based on wants and needs. An individual must practice optimal financial management to attain financial well-being and mitigate financial stress.

Financial Management

Humans are created by Allah SWT almighty to govern and manage their lives in the world. All of this is for the purpose of hoping for the grace and mercy of Allah SWT in this world and the hereafter. Only through systematic financial management and planning, the country can be well developed in fulfilling the ambitions and dreams of the developing nation. Look at the assertion of Allah Almighty in surah Yusuf verses 47 - 48, on the importance of planning before dealing with something and wisely in managing life so that it is not difficult later, which means:

"He said (Yusuf), "You will plant 'grain' for seven consecutive years, leaving in the ear whatever you will harvest, except for the little you will eat. Then after that will come seven years of great hardship which will consume whatever you have saved, except the little you will store 'for seed'."

Good financial management potentially increases financial satisfaction, reduces financial stress, and provides guidance for improved financial and debt management. Contrarily, poor financial management adversely influences families' economic well-being (Abdullah & Sabri, 2016). Joo and Garble (2004) disclosed a (direct or indirect) relationship between financial management and individual economic well-being. In this context, financial management implied human actions in managing cash, credit, and savings. Shim et al. (2009) revealed the correlation between the financial behaviours of budgeting and savings management and individual financial well-being. Undeniably, financial well-being is key to improving small rubber farmers' living standards and quality of life. Socio-economic development programmes must be organised to increase household income and living standards. Parallel to Che'mat, Rahman and Abd Mutalib (2022), incorrect financial management could cause financial pressure and negatively affect families' economic well-being. These implications underscore the significance of financial management. Financial literacy, financial issues, financial capacity, and work environment affected young workers' (respondents) economic well-being in the states of Kedah, Perlis, and Penang. Lusardi (2015) conceded that people with insufficient knowledge of financial management tend to make uninformed decisions. Likewise, Yew et al. (2017) explained that inadequate knowledge of financial management could expose individuals to financial crises that negatively affect their economy in the long run.

Shamshubaridah and Madeline's (2009) study on financial management among agricultural entrepreneurs, which involved 230 respondents, revealed financial records as one of the most important statements to be kept and used to monitor cash in and out. Approximately 85% of the respondents could distinguish between cash sales and debt and kept financial records. In Norhayati and Zaimah (2022), unsystematic financial management could instigate financial leakage, embezzlement, and financial insecurity and adversely impact individuals' and families' financial management. Related individuals optimally manage their cash flow and plan their expenditures. This outcome paralleled that of Mohamad Fazli et al. (2018), where people with good financial management skills experienced high living standards.

As efficient planning deters people from extravagant spending, good financial management encourages people to prudently manage their money. Optimal management and planning can occur upon considering all spending aspects based on needs (Noor Izyani & Khadijah, 2019). Individuals who can manage their financial resources easily avoid financial crises even with a low income.

Savings is a core component in financial management, which justifies individual well-being in terms of financial management. In this vein, every individual must seriously regard savings as a valuable asset. Ineffective individual financial management could lead expenses to exceed income, which renders it challenging to allocate a certain amount of money as savings. Similarly, Delafrooz and Laily (2011) implied that individuals who spend without considering their future needs struggle to save and allocate their income for emergencies.

METHODOLOGY

This quantitative study aimed to identify Muslim small rubber farmers' level of economic well-being and propose relevant measures to increase individual well-being. A survey questionnaire was distributed to obtain the respondents' profiles and measure their level of economic well-being index score.

In this research, the level of economic well-being index score based on the Malaysian Family Welfare Index (IKK) which uses a score of 10 as a maximum scale where the higher the score obtained, indicating a better level of family welfare. It also has gone through several main phases starting with identifying the domain and indicators as well as determining the methods and formulas for generating the required index. In this study, the level of family well-being was categorized into three namely low (score 0-4), medium (score 5-7) and high (score 8-10).

Data Preparation

The survey data were analysed using the Statistical Package for Social Sciences (SPSS) version 26.0. Two indicators, financial well-being and financial management, were empirically measured in this study. Financial well-being concerns financial resilience (the ability to pay utility bills, insufficiency to purchase basic goods, high financial control, and adequacy of emergency funds), financial management, and income satisfaction (adequacy of daily income). Financial management entails expense management (planning expenses in life, determining a monthly savings amount, for each month, planning to make investments for future use, determining the use of money based on needs versus wants, and using money for minimal expenses), which can facilitate budget management (meticulous family financial planning, development of family spending plans, and daily, weekly, monthly, and yearly spending plans). A total of 13 items were involved in this indicator. The reliability value of Cronbach's Alpha was 0.703. Following Table 1, the Kaiser-Meyer-Olkin (KMO) value reflected 0.805. One item was removed following the communalities weighting test outcome, which revealed a value under 0.50.

Table 1: Appropriateness Tests using Factor Analysis, KMO Item Uniformity, and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.783
Bartlett's Test of Sphericity	Approx. Chi-Square	523.005
	df	41
	Sig.	.000

The KMO test, which identifies the items' appropriateness for confirmatory factor analysis (CFA), demonstrated multicollinearity. When two or more items reflect the same correlation value, the items measure the same aspect. Meanwhile, Bartlett's Test of Sphericity served to identify sufficient item correlations. The significant test outcomes ($p < 0.05$) revealed an adequate correlation of items to perform CFA and determine whether the construct measurement in the survey questionnaire was aligned with the study factors (Williamet.al 2010).

Sample Selection and Data Collection of the Study

The study samples were selected with non-probability sampling, which uses a simple sampling method (non-probability convenience sampling). The population of small rubber farmers in Lenga and Pagoh, Muar Johor was estimated at 368 people. Hence, a sample size of 189 was selected.

Analysis of Study Data

A score scale of five was used as the maximum scale; a higher score value implied a higher level of small rubber farmers' economic well-being. The calculation formula is expressed below:

Indicator Score: $\frac{M1 - M2}{R} \times 10$

Domain Score: $\frac{\sum \text{Indicator Score}}{\sum \text{Indicator N}}$

Index Score: $\frac{\sum \text{Domain Score}}{\sum \text{Domain N}}$

Where;

M1: Mean/Average score

M2: Minimum Scale

R: Range

N: Total number of observations

The overall study score used a value ranging from 0 (lowest) to 5 (highest). As presented in Table 2, the small rubber farmers' level of economic well-being was categorised based on three aspects.

Table 2. Economic Well-being Index Score Level of Rubber Smallholders

Level	Index Score
Low	0.00 - 2.33
Medium	2.34 - 3.67
High	3.68 - 5.00

RESULTS AND DISCUSSION

Socio-economic Profile of Rubber Smallholders

This section presents the outcome derived from analysing the respondents' demographic attributes to gauge the economic well-being index score in terms of gender, age, education level, income level, number of household members, number of children, and the status of small rubber farmers.

With regards to gender, men and women reflected moderate economic well-being index scores for both indicators (see Table 3). Notwithstanding, women demonstrated a higher economic well-being index score based on financial well-being and financial management than men. The study findings corresponded to those of Malone et al. (2010), where women were financially conservative in buying behaviours and financial management, particularly with risky or sophisticated investments.

Rubber tappers from all age groups reflected moderate economic well-being index scores for the indicators of financial well-being and financial management (see Table 4). Regardless, the financial well-being of counterparts above 80 years old was higher than other age groups. The study findings paralleled those of Yeo and Lee (2019), who revealed higher levels of life satisfaction and financial well-being among older rather than younger adults.

Financial and economic well-being may differ based on individual attributes, such as age (CFPB, 2015). Conversely, Yeo and Lee (2019) disclosed an insignificant association between the individuals' income level and life satisfaction. All four income groups denoted a moderate economic well-being score index (see Table 5).

Table 3: Economic Well-being Index of Rubber Smallholders based on Gender

Economic Well-being	Gender	
	Male	Female
Financial well-being	2.71	2.84
Financial management	3.10	3.34

Table 4: Economic Well-being Index of Rubber Smallholders based on Age

Economic Well-being	Age							
	< 20	21-30	31-40	41-50	51-60	61-70	71-80	> 80
	years old	years old	years old	years old	years old	years old	years old	years old
Financial well-being	2.62	2.71	2.71	2.67	2.74	2.54	2.65	2.89
Financial management	3.24	3.07	3.16	3.08	3.17	3.1	2.85	2.05

Table 5: Economic Well-being Index of Rubber Smallholders based on Level of Income

Economic Well-being	Level of Income			
	< RM500	RM501-RM1,000	RM1,001-RM2,000	RM2,001-RM3,000
Financial well-being	2.45	2.81	2.78	2.38
Financial management	2.87	3.12	3.09	3.35

Table 6: Economic Well-being Index of Rubber Smallholders based on Level of Education

Economic Well-being	Level of Education				
	No Formal Education	Primary	Secondary	Diploma	Degree
Financial well-being	2.58	2.68	2.69	2.6	2.91
Financial management	2.73	3.01	3.08	3.14	3.26

Table 7: Economic Well-being Index of Rubber Smallholders based on Number of households

Economic Well-being	Number of Household		
	1 to 3	4 to 6	More than 7
Financial well-being	2.67	2.64	2.81
Financial management	3.08	3.01	3.07

Table 8: Economic Well-being Index of Rubber Smallholders based on Number of Children

Economic Well-being	Number of Children			
	No Child	1 to 3	4 to 6	More than 7
Financial well-being	2.61	2.7	2.71	2.64
Financial management	2.98	3.08	2.97	3.01

Table 9: Economic Well-being of Small Rubber Farmers based on Ownership Status

Ownership Status			
Economic Well-being	Owner	Rubber Tapper	Owner and Rubber Tapper
Financial well-being	2.76	2.68	2.69

Financial management	3.11	3	3.04
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The two sub-indicators of financial resilience and income satisfaction were evaluated under the financial well-being indicator, while four sub-indicators of expense management, budget management, savings management, and financial record management were assessed under the financial management indicator.

Table 10: Economic Well-being Index of Rubber Smallholders

Indicator	Sub-indicator	Index Score			
Financial well-being	Financial resilience	3.41	3.29	3.02	3.03
	Financial satisfaction	2.38	2.32	2.47	2.2
	Expenses	3.22	3.12	3.02	3.46
Financial management	Budgeting	2.9	2.55	2.21	3.23
	Savings	2.41	2.6	2.4	2.92
	Record	2.17	2.44	2.58	2.6

Regarding the financial well-being sub-indicators, financial resilience and income satisfaction attained the highest and lowest sub-indicator index scores at 3.41 points and 2.2 points, respectively, under the family economic domain. The overall score for this domain was 3.22 points. Empirically, the financial management indicator revealed a higher score (2.91 points) than the financial well-being counterpart (2.41 points).

The financial well-being Indicator translated the assessment of respondents' financial situation in fulfilling current financial well-being and commitments. The financial well-being index score for the financial resilience sub-indicator, which indicated a good level, implied that even the income satisfaction sub-indicator was at the lowest. Small rubber farmers' ability to pay utility (electricity, water, and telephone) bills every month, insufficient money to buy necessities, financial situation, and sufficient money for future needs implied financial resilience factors.

Although income satisfaction linked small rubber farmers' (owners or tappers) satisfaction level with the income obtained from rubber products, research on the Wellbeing Index of Small Rubber Farmers (iKPKG) for the economic well-being domain only involved earnings from rubber plantation activities. Income from other agricultural work or sectors was not included. Respondents' satisfaction with the sufficient income gained from rubber plantation activities to cover family expenses was one of the income satisfaction elements. In other words, respondents who are satisfied with their earnings do not require another job for side income.

Concerning each of the financial management sub-indicator, expense management attained the highest well-being score index (3.22 points), followed by budget management (2.90 points), savings management (2.41 points) and savings record management (2.17 points). Expense management measured how the respondent allocated basic family expenses, planned expenses in life, determined other expenses, and fulfilled other financial commitments. In terms of budget management, the respondents were assessed based on how they regularly set the budget and exerted financial control to ensure that their expenses remained within the budget. Savings management examined respondents' behaviour towards savings management, including savings for (i) future expenses and (ii) households in the wake of emergencies. Elements of savings record management entailed the financial records provided, such as a financial checklist on what has been spent and budget comparisons via available financial records.

CONCLUSION

The findings derived from this questionnaire highlighted the respondents' ability to manage, plan, and control family finances using skills in managing cash, credit, retirement, savings, risk, income adequacy, personal financial management, and spending. These empirical outcomes also proved the rubber smallholders' ability to obtain financial resources during emergencies and meet present and future needs and wants.

Several study implications were outlined to facilitate small rubber farmers to achieve individual well-being. First, a community programme could be implemented in rubber-tapping villages to introduce income-generating activities and initiatives. Such socialisation can be complemented by workshops and talks on additional income generation strategies.

Second, an incubator programme could be developed for tappers who seek other avenues of income by generating agricultural produce or relevant products. Given the tappers' unfamiliarity with marketing channels, their products or agricultural produce should be monitored from creation to sale to end customers.

Lastly, government agencies should work in a collective manner. The MRC can collaborate with government agencies (RISDA) to implement more holistic programmes that facilitate smallholders to increase their income.

Such collaborations can increase rubber tappers' awareness of side income and provide them with additional income-generation opportunities.

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