

FINANCIAL FACTORS AS ANTECEDENTS OF ECONOMIC WELL-BEING AND MEDIATION EFFECT OF TECHNOLOGY ADOPTION

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Abstract

Due to the limited number of previous studies and their existing inconsistencies on the identification of related financial antecedents of individual economic well-being, this study examined the effect of the financial antecedents, such as financial knowledge, financial behavior, and money attitudes on both technology adoption and economic well-being in order to address the existing gaps in the literature. Moreover, according to the authors' best knowledge, the mediating role of agricultural technology adoption was investigated the first time between financial antecedents and economic well-being. A survey of 416 Sri Lankan coconut growers was undertaken using a multi-stage random sampling procedure. All direct associations between financial knowledge, financial behavior, money attitudes, and economic well-being were significant with the PLS-SEM analyses. They all explained 91.1% of the overall variance in economic well-being. Moreover, the mediating role of agricultural technology adoption was also found significant for all relationships between financial antecedents and economic well-being. The mediating model was also clarified 2.2% of the additional variance in economic well-being. Further, three financial antecedents were also detected as positive antecedents of agricultural technology adoption and explained 80% of the variance in technology adoption. Hence, the present study results are important to broaden the understanding of the effect of financial antecedents on agricultural technology adoption and economic well-being to address the existing gaps in the literature. Furthermore, it guides policymakers in future policy implications to facilitate well-being by properly comprehending financial-related antecedents among individuals, especially in developing countries, to reduce their poverty through agricultural technology adoption.

Keywords: Economic well-being; Financial behavior; Financial knowledge; Money attitudes; PLS-SEM

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Introduction

Economic well-being analysis and measurements are essential topics for countries worldwide developing efficient and effective policies to eliminate social inequities and improve people's quality of life. Furthermore, economic well-being is a multifaceted concept that encompasses several areas of life. Most aspects are difficult to measure and rely on subjective assessments (OECD, 2013). This means that there is no single, universal definition of economic well-being or a unique method for measuring it. Multidimensionality complicates the assessment of economic well-being and necessitates using various indicators, resulting in a slew of theoretical, methodological, and empirical issues.

Despite a growing corpus of literature on economic well-being indices that incorporate economic, social, and environmental issues to quantify the quality of economic well-being, the factors that influence the concept are still not documented well (OECD, 2013). According to the OECD (2011), assessing economic well-being needs a comprehensive framework that comprises many constituents and preferably permits assessing how their interrelationships shape individuals' lives. Economic well-being is a multifaceted phenomenon with several of its determinants intensely linked with one another. The latest research has encouraged the need to identify and understand the antecedents of an individual's economic well-being (Wijekoon et al., 2021a). Unfortunately, scant studies undertake financial-related factors in determining economic well-being (Wijekoon et al., 2021a), thus motivating the present study to address this gap. Even though very few previous studies identified financial antecedents of economic well-being (Wijekoon et al., 2021a), inconsistencies were still found.

Further, according to the authors' best knowledge, the influence of technology adoption as a mediator between financial factors and economic well-being was not reported in previous literature. Therefore, the two primary objectives of the current study are to identify the financial antecedents of economic well-being and to find out the mediation effect of technology adoption between financial antecedents and economic well-being. Moreover, financial antecedents that affect agricultural technology adoption will also be revealed, such as financial knowledge, financial behavior, and money attitudes. Hence, this study addresses several gaps in agricultural technology adoption and economic well-being.

The rest of the paper provides a literature review on the Family Resource Management Model and an explanation of the constructs; economic well-being, financial knowledge, financial behavior, money attitudes, and methods utilized. The hypotheses are then tested with PLS-SEM, and direct, indirect model findings are discussed. Finally, the article concludes with recommendations for future research and implications.

Literature Review

Theoretical foundation

The theoretical framework of the current research is grounded on Family Resource Management Model, which explains how a family manages its resources to fulfill its goals (Deacon & Firebaugh, 1988). It is a systems-oriented management method in which management is defined as “the process of using resources to achieve goals” (Goldsmith, 2005). Inputs, throughputs, outputs, and the feedback loop are the four stages of the model that describe how families make financial decisions and develop financial behaviors (Figure 1). According to the model, the inputs go through throughput resulting in observable output. Prior studies have evidenced that the Family Resource Management Model was successfully applied to explain the related financial issues associated with individuals. For example, Mimura (2014) investigated married women’s life happiness and relationship with household financial preparation in Japan. In a different study, the relationship between family income and well-being was studied by Mimura *et al.* (2019). As a result, the Family Resource Management Model was chosen to base the current theoretical framework. The financial knowledge, financial behavior, and money attitudes are the external inputs of the current study, which are going through the throughput, which is the technology adoption. Throughput; technology adoption goes through both the personal and managerial subsystems of an individual to gain the output; economic well-being.

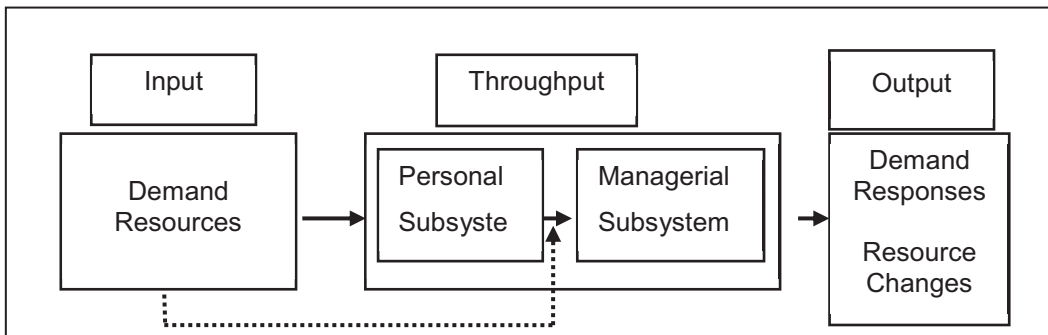


Figure 1: Family Resource Management Model (Deacon & Firebaugh, 1988)

Economic well-being

Xiao (2013) defined economic well-being as “an economic status with sustainably adequate economic resources to live a comfortable life.” The Organization for Economic Co-operation and Development (OECD; 2015) states that “economic well-being is multidimensional, covering aspects of life ranging from civic engagement to

housing, from household income to work-life balance, and from skills to health status.” Individual freedom, spiritual and intellectual richness, and interpersonal relations are just a few of the characteristics that go beyond the economic measurement of income or wealth when it comes to determining an individual’s or a nation’s economic well-being (Brugnoli *et al.*, 2009). OECD (2011) also stated that “since economic well-being is a complex phenomenon and many of its determinants are strongly correlated with each other, assessing economic well-being requires a comprehensive framework that includes a large number of components and that, ideally, allows gauging how their interrelations shape people’s lives.” Moreover, the OECD (2013) report has mentioned that economic well-being is a vital parameter for overall well-being.

Financial knowledge

The capability to comprehend financial concepts is referred to as financial knowledge. It could be defined as “the ability to understand financial concepts and positively related to financial practices such as cash flow management, credit management, savings, and investment” (Robb & Woodyard, 2011). It encompasses the capacity to comprehend financial concepts and the awareness of the importance of seeking financial guidance. Financial knowledge is a crucial component in making financial decisions. According to Kholilah and Iramani (2013), financial knowledge variable includes many indicators, including “1) knowledge of interest and credit, 2) knowledge related to financial budget preparation, 3) knowledge of investment in deposits, 4) knowledge of investment shares, 5) knowledge of how to invest in property, 6) knowledge of investing in mutual funds, and 7) knowledge of insurance”.

A correlation between financial knowledge and well-being was revealed by Lee *et al.* (2020). In another study with Sri Lankan coconut growers, Wijekoon *et al.* (2021a) found a significant positive association between financial knowledge and economic well-being. Further, Müller and Theuvsen (2015) revealed a positive impact of financial knowledge on technology adoption in 2015, later confirmed by Wijekoon *et al.* (2021a).

Financial behavior

Even though most of the research relies on self-reports, the term financial behavior relates to individual financial results that are observable and could be defined as “the acquisition, allocation, and use of financial resources oriented toward some goals” (Topa *et al.*, 2018). According to Xiao (2008), it could be any individual activity associated with money management. Credit, saving, and cash management are all examples of common financial behaviors (Hogarth & Hilgert, 2002). Gudmunson and Danes (2011) identified two forms of interrelated financial behavior types to highlight further the mechanisms that contribute to financial behavior. Its most basic form is a series of actions taken over time, for instance, earning, spending, saving, and gifting.

Financial turning points and decision-making are the second types of behavior necessary for financial success. This form of behavior is more event-like. It involves the initiation and termination of passive financial operations, such as opening a million-dollar account or creating an automatic pay-yourself-first savings plan.

Individuals with positive financial behaviors manage their finances better to achieve higher economic well-being (Brilianti & Lutfi, 2020; Wijekoon *et al.* (2021a). According to Xiao (2013), financial behavior is very important to enhance consumer economic well-being and can be used to determine economic well-being. Further, financial behavior plays an essential role in FinTech adoption (Yoshino *et al.*, 2020).

Money attitudes

“Money attitude is defined as an individual’s psychological disposition towards a particular financial practice; it is the evaluation of ideas, events or objects” (Yong *et al.*, 2018). Money is no longer just a means of exchange; it has also evolved into a means of achieving happiness and well-being. According to Diener *et al.* (2010), status, respect, freedom, and luxury are the four symbolic values of money. Previous studies have established a positive link between these values and subjective well-being. Nickerson *et al.* (2007) found an association between money orientation and life satisfaction. Their research found that persons who had a high level of materialism or were fascinated with money were more content with their finances since they could afford their material aspirations. The findings suggest that individuals’ perceptions of their well-being are influenced by their goals in life. Individuals with a good attitude about money are more likely to be careful by budgeting and planning for their future financial needs (Sabri & Zakaria, 2015).

Money attitudes are fundamental to enhancing individuals’ economic well-being, and it acts as one of the significant determinants of economic well-being (Xiao, 2013). Moreover, Hayhoe *et al.*’s (1999) results showed that students with four credit cards scored higher on the money attitude scale. It is good evidence that there is a direct positive association between money attitude and technology adoption.

Technology adoption

The decision to acquire and employ an innovation is known as technology adoption. According to Rogers (2003), innovation or new technology adoption was taken place in several steps (innovators, early adopters, early majority, late majority, and laggards), and these steps are based on the personality traits of the people or farmers in agriculture. According to Wu *et al.* (2010), rice technology adoption has a positive influence on the well-being of Chinese paddy growers. Moreover, Awotide *et al.* (2015) investigated the importance of enhanced agricultural technology adoption on smallholder farmers’ increased agricultural productivity and well-being. In two

studies with Sri Lankan coconut growers, Herath and Wijekoon (2013; 2021) found that the technology adoption was essential to increase the productivity of the coconut lands, and it was directly affected for enhancing both their income and well-being of them. Further, the direct association between technology adoption and economic well-being was revealed by several researchers, for example, Abebe and Sewnet (2014); Kassie *et al.* (2018); Manda *et al.* (2016); and Wijekoon *et al.* (2021a).

Therefore, hypotheses and theoretical framework (Figure 2) could be suggested based on the discussed literature.

H₁: Financial knowledge positively influences the coconut growers' technology adoption.

H₂: Financial behavior positively influences the coconut growers' technology adoption.

H₃: Money attitudes positively influence the coconut growers' technology adoption.

H₄: Financial knowledge positively influences the coconut growers' economic well-being.

H₅: Financial behavior positively influences the coconut growers' economic well-being.

H₆: Money attitudes positively influence the coconut growers' economic well-being.

H₇: Technology adoption positively influences the coconut growers' economic well-being.

H₈: Technology adoption mediates the association between financial knowledge and economic well-being.

H₉: Technology adoption mediates the association between financial behavior and economic well-being.

H₁₀: Technology adoption mediates the association between money attitudes and economic well-being.

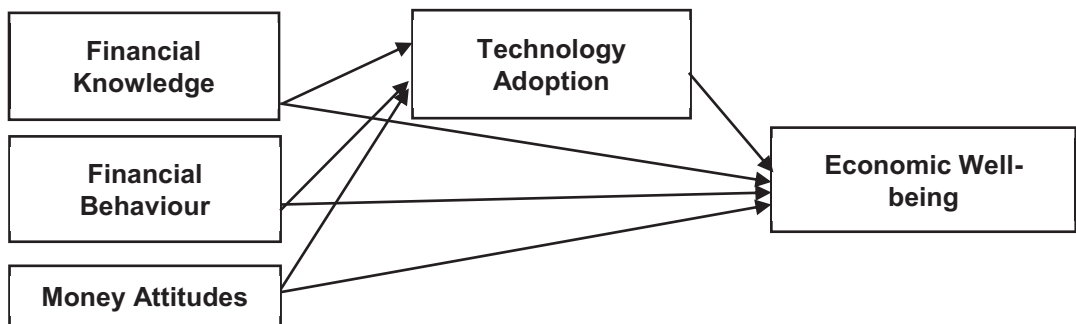


Figure 2: Theoretical Framework

Methodology

Sampling

Around 30,000 coconut growers in the coconut triangle, and 416 coconut growers from the districts Gampaha, Kurunegala, and Puttalam, which belong to the Coconut Triangle, were selected to collect the data using a multi-stage random sampling method. In the first stage of multi-stage random sampling, the coconut triangle was divided into four regional areas: Gampaha, Kurunegala, Kuliypitiya, and Marawila. Four Coconut Development Officer (CDO) ranges were selected randomly from each region at the second stage. In the third stage, the estates were categorized into four categories according to the extent groups which are introduced by Sri Lanka Coconut Research Institute which were, >0.5- <5 ac., 5- 10 ac., >10-50< ac., and >50 ac. Then in the fourth stage, technology adopted (TA) and non-adopted (NA) coconut estates were identified, and growers were chosen under the above two groups from each estate category.

Instruments

Financial knowledge was assessed with the 16 “Yes or No” items adapted from Hogarth and Hilgert (2002). The questionnaire covered three financial knowledge topics; credit, savings, and general financial knowledge. Financial behavior items were adapted from Sabri *et al.* (2012) that was consisted of 12 items on a five-point Likert scale which was ranged from never (1) to very frequent (5). In addition, cash management, credit management, retirement planning, real estate planning, and risk management areas of financial behavior were covered. Ten items were adopted from the money attitude scale, introduced by Furnham (1984). Five items were adapted from the study by Abdekhoda *et al.* (2015) from their technology adoption scale for the current study, respectively. Both items ranged from strongly disagree (1) to strongly agree (5). Finally, the economic well-being questionnaire was comprised of 34 items which were adapted from Bigot *et al.* (2017); Diener *et al.* (1985); Haver *et al.* (2015); Kinderman *et al.* (2011); Orsila *et al.* (2011); and Radzyk (2014). It was evaluated on a 5-Likert scale ranging from entirely dissatisfied (1) to completely satisfied (5), covering all the critical aspects of economic well-being.

Data collection

The data were collected from December 2020 to April 2021. Responses were collected through the telephone interviews using the sample, which was selected through multi-stage random sampling. Both English and Sinhala versions were available for the respondents to answer the survey based on their language preference. The respondents were allowed to choose the language they were comfortable with. Both types were identical, and the choice of language to answer the

questionnaire was given once the respondent connected with the telephone. A total of 416 questionnaires were collected.

Data analysis

The demographic characteristics of the respondents were described using descriptive statistics (gender, age, race, education level, marital status, occupation, and income). The frequency, percentage, mean values, and standard deviation were calculated using SPSS version 26 statistical software. PLS-SEM was employed to test the connections proposed in the theoretical model because it can be used for both the samples, either normally distributed or non-normally distributed (Hair *et al.*, 2017). Further, mediation effects also can be analyzed precisely and simultaneously using PLS-SEM (Henseler *et al.*, 2009). Smart-PLS 3.3 software was utilized to run PLS-SEM, which used the bootstrap approach with 5000 resampling iterations.

Findings and Discussion

Table 1 shows the demographic profile of the respondents.

Table 1: Demographics of the Respondents

Respondent’s Background	Frequency	Percentage (%)
Gender		
Male	294	73.5
Female	106	26.5
Ethnicity		
Sinhala	370	92.5
Tamil	13	3.3
Muslim	17	4.2
Religion		
Buddhist	295	73.7
Catholic	75	18.7
Hinduism	13	3.3
Islam	17	4.3
Age (years old)		
40 and below	53	13.3
41-49	92	23.0
50-59	94	23.5
60-69	104	26.0
70-79	57	14.2

Table 1 (continues)

Respondent's Background	Frequency	Percentage (%)
Education Level		
Primary	13	3.3
GCE/OL	30	7.5
GCE/AL	230	57.5
Diploma	37	9.3
BSc	76	19.0
MSc/ M. Phill/ PhD	14	3.5
Marital Status		
Unmarried	9	2.3
Married	342	85.5
Divorced	10	2.5
Widowed	39	9.7
No. of dependents		
1	1	0.3
2-3	20	5.0
4-5	259	64.8
More than 5	120	30.0
Income groups		
≤SLR 30,000 (150 USD)	1	0.3
SLR 30,001 (150 USD) - SLR 50,000 (245 USD)	18	4.5
LR 50,001 (245 USD) – SLR 75,000 (370 USD)	67	16.8
SLR 75,001(370 USD) – SLR 100,000 (500 USD)	73	18.3
SLR ≥ SLR 100,001 (500 USD)	241	60.3

Based on the demographics of the respondents (Table 1), approximately three-fourths (73.5%) were male, and the rest (26.5%) were female. In terms of ethnicity, the majority of the growers were Sinhala (92.5%), followed by Muslim (4.2%), and Tamil (3.3%). In terms of religion, Buddhist (73.7%), Catholic (18.7%), Islam (4.3%), and Hinduism (3.3%) were recorded. When considering the age majority of the growers were in the age group of 60-69 (26.0%), trailed by the age groups 50-59 (23.5%) and 41-49 (23.0%), respectively. The mean age of the coconut growers was 55.1 years old. The marital status of the respondents was included; unmarried, married, divorced, and widowed. 85.5% were married, and 9.7% and 2.5% were widowed and divorced. Only 2.3% was recorded as single. In addition, 19% of the coconut growers were degree holders, and only 3.5% of them were postgraduates. With respect to the income groups, more than half (60.3%) of the coconut growers earned an income Sri Lankan Rupees (SLR) ≥ 100,001 (500 USD), while 18.3% and 16.8% were fallen under the income category of SLR 75,001(370 USD) – SLR 100,000 (500 USD), and SLR 50,001(245 USD) – SLR 75,000 (370 USD), respectively. Only, 0.3% was received ≤SLR 30,000 (150 USD) per month.

The authors used procedural and statistical remedies to combat the potential threat of common method bias in cross-sectional research designs. In terms of procedural design, the survey was created in collaboration with renowned academics who specialize in well-being research. Further, a pre-test was conducted to guarantee the clarity and conciseness of the questionnaire items (Podsakoff *et al.*, 2003).

A normality test was done for the collected data (Table 2).

Table 2: Results of the Normality Test

Dimensions	Skewness	Kurtosis
Financial Knowledge	0.710	-0.587
Financial Behavior	0.348	-1.044
Money Attitudes	-0.134	-1.474
Technology Adoption	-0.182	-1.631
Economic Well-being	-0.074	-1.675

Normality was tested with skewness and kurtosis, and if both parameters were within the range of -2 and +2, the data set was considered normally distributed (George & Mallery, 2003). All the values were within the given range, and normal distribution was assumed.

A multicollinearity test was done to identify whether one or more variables are highly correlated with each other. Multicollinearity occurs when the variance inflation factor (VIF) is higher than five (Hair *et al.*, 2019). The multicollinearity results of the variables are given in Table 3.

Table 3: Results of the Multicollinearity Test

Model Variables	Collinearity Statistics
	VIF
Financial Knowledge	1.507
Financial Behavior	2.520
Money Attitudes	3.585
Technology Adoption	2.768
Economic Well-Being	2.653

All VIF values are below five, so multicollinearity was not shown between the constructs (Hair *et al.*, 2017). This has shown that there was low redundancy among the constructs. Additionally, respondents’ anonymity and confidentiality were assured.

Checking the indicator loadings, reliability, convergent validity, and discriminant validity are integral parts of the reflective measurement model evaluation. To begin, the data showed that all loadings were more than the cut-off value of 0.7. (Hair *et al.*,

2019). Second, as presented in Table 4, all items had composite reliability (CR) values of more than 0.70, showing excellent internal consistency (Hair *et al.*, 2006). Finally, the average variance extracted (AVE) was more significant than 0.4 (Fraering & Minor, 2006), which indicated the convergent validity of the results.

Table 4: Reliability and Validity Results

Dimensions	Composite Reliability (CR)	Average Variance Extracted (AVE)
Financial Knowledge	0.841	0.423
Financial Behavior	0.845	0.414
Money Attitudes	0.890	0.604
Technology Adoption	0.964	0.888
Economic Well-being	0.960	0.455

The discriminant validity was evaluated utilizing the heterotrait-monotrait ratio (HTMT) approach (Henseler *et al.*, 2009). Table 5 displays that (HTMT) ratios were under the threshold value of 0.85 (Kline, 2011) and discriminant validity was also established.

Table 5: Discriminant Validity (HTMT)

	EWB	FB	FK	MA	TA
EWB					
FB	0.756				
FK	0.931	0.705			
MA	0.952	0.785	0.943		
TA	0.917	0.755	0.857	0.917	

Notes: EWB-Economic Well-being; FB-Financial behavior; FK-Financial Knowledge; MA-Money Attitudes, TA-Technology Adoption

Structural model assessment

The path coefficient analysis through PLS-SEM was applied to study the direct relationships. The economic well-being was strongly and positively influenced by the growers’ money attitudes ($\beta=0.463$), followed by technology adoption ($\beta=0.337$), financial behavior ($\beta=0.155$), financial knowledge ($\beta=0.049$), and the three determinants clarified 91.1% of the variance of economic well-being. Moreover, money attitudes ($\beta=0.425$), followed by financial behavior ($\beta=0.271$), financial knowledge ($\beta=0.261$) were affected positively on technology adoption. These three financial factors described 80.0% of the variance of technology adoption. Hence, all ten hypotheses could be accepted. Furthermore, the established model indicates excellent predictive power because the Q^2 of economic well-being is 0.587, which signifies that the research model has an excellent predictive relevance with Q^2

values larger than zero. Figure 3 depicts the results of the direct and mediation measurement model, and the summarized results of the direct hypotheses testing are given in Table 6.

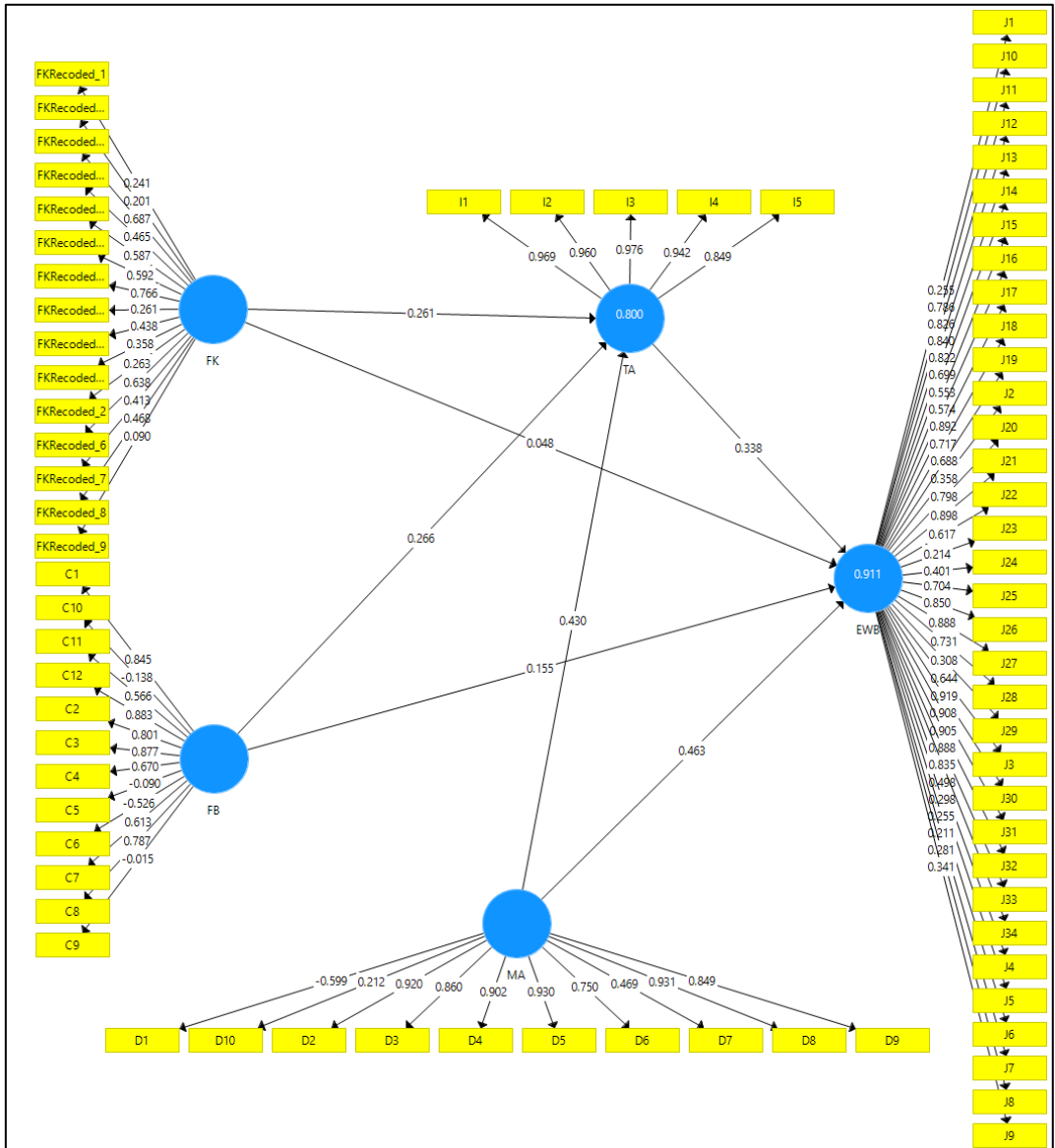


Figure 3: The Results of the Direct and Mediation Measurement Model

Table 6: Path Coefficients for Direct Associations

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	Result
H ₁	FK ->TA	0.261	0.043	6.080**	Supported
H ₂	FB -> TA	0.271	0.049	5.455**	Supported
H ₃	MA -> TA	0.425	0.061	7.082**	Supported
H ₄	FK ->EWB	0.049	0.025	1.991*	Supported
H ₅	FB -> EWB	0.155	0.033	4.713**	Supported
H ₆	MA -> EWB	0.463	0.038	7.082**	Supported
H ₇	TA -> EWB	0.337	0.034	10.027**	Supported

Significant at *p<0.05, **p<0.001, FK- Financial Knowledge, FB- Financial behavior, MA- Money attitudes, TA-Technology Adoption, EWB- Economic Well-Being

Then, the mediation test of bootstrapping was then performed to reveal the mediation effect of technology adoption between the relationships of financial knowledge, financial behavior, money attitudes, and economic well-being. Table 7 shows the results of the mediation test, and all three mediated pathways were significant. Thus, H₈, H₉, and H₁₀ were accepted. Further, the addition of technology adoption as a mediator to the model was explained by 2.2% of the variance of economic well-being.

Table 7: Path Coefficients for Mediation Effects

Hypothesis	Relationship	Std. Beta	CI	t-value	Result
H ₈	FK -> TA -> EWB	0.088	[0.056, 0.123]	5.288*	Supported
H ₉	FB -> TA -> EWB	0.143	[0.054, 0.126]	4.805*	Supported
H ₁₀	MA -> TA -> EWB	0.091	[0.095, 0.194]	5.705*	Supported

Significant at *p<0.001, CI-Confidence Interval, FK- Financial Knowledge, FB- Financial behavior, MA-Money attitudes, TA- Technology Adoption, EWB- Economic Well-Being

According to the accepted hypotheses, financial knowledge, financial behavior, and money attitudes were revealed as significant predictors of economic well-being. Some research has found that people’s proclivity to plan impacts their economic well-being. These findings offer insight into enhancing the association between financial knowledge and economic well-being (Lee & Kim, 2016). In general, better financial decisions are taken by individuals with more excellent financial knowledge (Atkinson & Messy, 2012). The women with high financial knowledge exhibited enhanced well-being (Zulfiqar & Bilal, 2016). Lee *et al.* (2020) revealed a positive link between financial knowledge and individual well-being. In this regard, financially knowledgeable individuals who make well-informed decisions are critical to the marketplace’s effective and efficient performances (Hogarth & Hilgert, 2002), and their economic well-being is higher. As a result, the link between growers’ financial knowledge and economic well-being could be confirmed.

Several empirical research studies have found a statistically significant link between financial behavior, financial well-being, and economic well-being. According to Joo and Grable (2004), financial well-being is linked to financial behaviors, for instance, paying credit card bills in full each month, following a weekly or monthly budget, and putting money aside for savings. Shim *et al.* (2009) revealed that financial behaviors, for instance, budgeting and saving management, were linked to young adults' financial well-being. Worthy *et al.* (2010) stated that college students' poor financial behavior might impair their future financial well-being. Chikezie and Sabri (2017) found a link between financial well-being and financial behavior among Malaysian university students. Because financial well-being is one of the most important aspects of economic well-being, the positive correlation between financial behavior and economic well-being was further confirmed by the results of this study.

Indeed, one's money attitudes will influence their spending and saving habits, as well as the achievement of particular life goals (Nga & Yeoh, 2015). Individuals achieve life fulfillment when they set worthwhile life goals, and Nickerson *et al.* (2007) attempted to support the link between life satisfaction and personal well-being. Furthermore, Falahati and Paim (2011), Gasirowska (2015), and Sabri *et al.* (2020) revealed a significant association between money attitude and financial well-being in their investigations. Because financial well-being is one of the dimensions of economic well-being, the relationship between money attitudes and economic well-being was validated further.

A significant direct linear relationship found between technology adoption, and economic well-being was in line with Wu *et al.*'s (2010) study, which found that the upland rice technology adoption had the most substantial influence on Chinese paddy growers' well-being. In addition, Smale and Mason (2014) carried out a study with smallholder maize farmers in Zambia. They revealed the increasing well-being among the growers by adopting hybrid seed technologies. Another study by Kassie *et al.* (2012) revealed robust, significant, and positive effects of improved variety adoption on poverty alleviation by enhancing the growers' overall well-being. Moreover, the empirical results suggested that improved agricultural technology adoption can play a crucial role in strengthening asset ownership of smallholder farmers for increased agricultural productivity and income generation (Awotide *et al.*, 2015). Therefore, these prior studies further validated the linkage between technology adoption and the economic well-being of the growers. Therefore, it was evident that the technology adoption improves the coconut yield and enhances the coconut growers' economic well-being.

Moreover, enhanced financial knowledge, good financial behaviors, and positive money attitudes are significant factors that play a vital role in agricultural technology adoption (Wijekoon *et al.*, 2021a). For example, Teye and Quarshie (2021) found a positive association between Ghanaian rice growers' financial knowledge and

technology adoption and rural household economic well-being. Müller and Theuvsen (2015) discovered that financial knowledge substantially impacts the likelihood of adopting new technology in Guatemala's fresh pea sector. Moreover, farmers might also be required to adopt high technologies, for example, automated fertigation systems, often with the help of a loan; hence, farmers need to have a solid understanding of credit management (Müller & Theuvsen, 2015). Farmers with better financial skills may have more resources and credit to invest in new technologies on the farm. A high level of financial knowledge is linked to more unspent revenue and a higher spending capacity (Klapper *et al.*, 2012). Yoshino *et al.*'s (2020) study indicated that people with more unusual financial behavior are more likely to acquire and process financial information than people with lower financial behavior, making it easier for the former to participate in the FinTech adoption process. Further, the previous study by O'Shea *et al.* (2018) revealed that growers' attitudes, including money attitudes, are essential aspects influencing the growers' technology adoption decisions. Therefore, the positive relationships between financial knowledge, financial behavior, money attitudes, and technology adoption revealed in the study were consistent with the previous literature.

According to the researchers' best knowledge, this is the first study that examines technology adoption as a mediator on the association between financial factors and economic well-being. As a result, the current study contributes to the conceptually and practically scientific literature of economic well-being. Further, the findings are a valuable reference for policymakers when making judgments about improving economic well-being through poverty alleviation programs (Wijekoon *et al.*, 2021b).

Conclusion, Implications, and Recommendations

All ten evaluated hypotheses were empirically supported and in line with the past studies. Hence, financial knowledge, financial behavior, money attitudes, and technology adoption positively influenced the economic well-being level of Sri Lankan coconut growers. Further, 91.1 percent of the variance of economic well-being was also clarified by the financial antecedents and the technology adoption together. Among all the determinants directly linked with economic well-being in the proposed model, money attitude ($\beta = 0.463$, $t = 12.121$, $p < 0.001$) has the greatest influence trailed by technology adoption ($\beta = 0.337$, $t = 10.027$, $p < 0.001$), financial behavior ($\beta = 0.155$, $t = 4.713$, $p < 0.001$), and financial knowledge ($\beta = 0.049$, $t = 1.991$, $p < 0.05$). Moreover, money attitude ($\beta = 0.425$, $t = 7.082$, $p < 0.001$), financial behavior ($\beta = 0.271$, $t = 5.455$, $p < 0.001$), and financial knowledge ($\beta = 0.261$, $t = 6.08$, $p < 0.001$) were revealed to have a positive influence on agricultural technology adoption and clarified 80% variance of the technology adoption. The associations between financial behavior, financial knowledge, money attitude, and economic well-being were hypothesized to mediate technology adoption. All the mediating paths were supported, and the mediating effects also explained 2.2 percent of the additional

variance. Furthermore, the results revealed that the Family Resource Management Model fitted well to the study because the resources, for example, financial behavior, financial knowledge, money attitude of individuals of a family, is important to enhance their technology adoption (throughput) and gives the output (enhanced economic well-being) which is significant for the overall well-being of the family.

The current study was restricted to the financial factors and technology adoption on economic well-being. Therefore, more scale development is required to generate metrics of other specific aspects of economic well-being. Then it might be possible to recognize elements accompanying specific dimensions of economic well-being other than financial, for example, physical, social, emotional, intellectual, vocational, environmental, and spiritual components, and the global measure of this concept. Additionally, the outcomes of this study are restricted to the Sri Lankan coconut growers in this sample. Due to potential inequalities in people's financial activities, a sample covering diverse populations could produce different results. As a result, further investigations on the associations between economic well-being drivers and individual economic well-being should be undertaken with different contexts and nations.

Further, the authors cannot make any causal claims or evaluate the links between the investigated antecedents and economic well-being over time due to the cross-sectional nature of this study. Therefore, research designs that allow for causal inference are required to conduct an accurate causal examination of the impact of individual economic well-being. Hence, future studies should use a longitudinal design to investigate the relationships between economic well-being drivers and individual economic well-being over time. Moreover, future research should build on this work by developing and testing integrated comprehensive models to capture a more holistic knowledge of the underlying causes of economic well-being.

Moreover, conducting gender-specific awareness programs (Sabri & Wijekoon, 2019) to improve their financial-related factors is another area that the pedagogies would consider to enhance the financial health of the households. Further, as Sabri *et al.* (2019) suggested, gamification and edutainment incorporated tools such as Smart Money Kits could be an excellent solution to enhance children's financial knowledge, money attitudes, and financial behavior to make financially secure prudent adults in the future. Also, due to the significant effect of related financial antecedents on poverty (Wijekoon *et al.*, 2021b), the outcomes of this research will make it easier for policymakers to plan and evaluate programs and policies which are related to poverty alleviation, especially for low- and middle-income households in order to improve their overall well-being. Moreover, pedagogists can integrate these economic well-being determinants into the school syllabus to familiarize students and guide students to achieve enhanced economic well-being in the future. Family Resource Management Model integrated theoretical framework with financial determinants of economic well-

being is essential for researchers to use in their future studies by integrating new theories and variables.

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