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Financial Well-Being and Financial Stress: Examining the Moderating Effect of Gender

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Abstract: The study aims to investigate the relationship between financial well-being and financial stress while examining the moderating role of gender. The study uses a survey method, and data were collected in Kashmir Province of Jammu and Kashmir, northern India, from 168 respondents selected on a convenience sampling basis. The results strongly supported the hypothesised model and have put forth evidence that financial well-being has a negative impact on financial stress and that this relationship is moderated by gender. The study has important implications for academia, future researchers, governments, and policymakers aiming at improving their citizens' quality of life, health, and well-being, a key sustainable development goal, and the ultimate goal of the Transformative Consumer Research Agenda.

Keywords: financial well-being, well-being, sustainable development goals (SDGs), financial stress, gender

JEL Classification: G50, I30, 131

1. Introduction

Financial well-being as a term has garnered considerable attention in recent years, primarily because of three reasons: a) increasing poverty, b) increasing inequality across nations, and most importantly c) due to its connections with several key sustainable development goals (Bowman et al., 2017; Fu, 2020). Research on this subject has been classified under the category of Transformative Service Research, which is described as the combination of consumer and service research with the ultimate goal of improving the well-being of citizens, employees, and communities (L. Anderson et al., 2013). Therefore, more research is directed in this area (Brüggen et al., 2017; Mahendru, 2020). Extant research reveals the dire need for further research on the antecedents and outcomes of financial well-being due to the variations in financial well-being scores reported across different demographic groups (CFPB (Consumer Financial Protection Bureau), 2017). The current study addresses these gaps by investigating the relationship between financial well-being and financial stress while examining whether gender moderates the established relationship.

Understanding the relationship between financial well-being and financial stress is important for three reasons: First, prior research found stress to be correlated with both wealth and well-being (Ng et al., 2009), which are key determinants of one's quality of life (Aripin et al., 2017), and the achievement of key sustainable development goals (Le Blanc, 2015). At a macro level, stress is detrimental to the entire economy (Davig and Hakkio, 2010). Second, lower levels of financial well-being trigger a stress cycle that stifles both personal and social progress (Utkarsh et al., 2020). Third, with the emergence of the COVID-19 pandemic, the financial well-being of individuals might be adversely impacted due to increasing unemployment, loss of income, and increasing debts (International Labour Organization, 2021), which can have further negative effects on the psychological well-being and physical health of individuals through financial stress. For instance, an individual's financial circumstances are found to have a substantial impact on his or her mental well-being (Hojman et al., 2016). This impact can be even worse when individuals live in a politically insecure and terrorism-affected area, for example, Kashmir, India, which is the context of the current study. The territory of Kashmir, India, has been a victim of sustained terrorism and economic and political insecurity for the past three decades. Gaibulloev et al. (2019) explored the impact of terrorism on the subjective well-being of people living in Pakistan and found that terrorism adversely affects financial well-being. It is reported in the extant literature that perceptions of political security negatively correlate with subjective well-being (Wills-Herrera et al., 2011), thereby inducing psychological stress (Gaibulloev et al., 2019). To the best of the authors' knowledge, no evidence on the financial well-being and financial stress of the citizens of Kashmir, India, exists while also considering age as a moderator in the proposed model.

The current research makes three contributions: First, the study is centred on Kashmir, India, thereby responding to the call from extant literature to add more studies on financial well-being in developing nations (Brüggen et al., 2017; Mahendru et al., 2020) due to the paucity of research there (Fu, 2020), though being the priority target of the UN 2030 agenda (Antoniades et al., 2020). Second, the authors' attempt to investigate whether the levels of financial well-being are related to financial stress. This has implications for the achievement of a key Sustainable Development Goal (SDG 3), which aims to improve the health and well-being of citizens globally. Third, the authors show how the relationship between financial well-being and financial stress varies across genders. Prior research reveals the existence of only a few empirical studies investigating the moderating role of gender in financial matters (Falahati and Paim, 2012). Along these lines, the present study is significant because it attempts to make a crucial contribution to enhancing citizens' quality of life and improving their overall health and well-being.

The current study is structured as follows: after this introduction, section 2 presents a brief literature review of the concepts under study, which reports on key research findings from previous studies to form the present study's conceptual framework. Section 3 outlines the methodology employed for carrying out the current study. Section 4 presents the key findings of the current study, followed by a discussion in section 5. Section 6 concludes, suggesting the implications of the findings, the limitations of the current study, and directions for future research.

2. Theoretical Background and Hypothesis Development

2.1. Financial Well-Being

The concept of financial well-being is relatively new and has received considerable importance in recent years. It is a subset of subjective well-being, a subject of many studies in economics and psychology (Michael Collins and Urban, 2020), which has an impact on key determinants of a happy life such as life satisfaction, psychological well-being, and academic performance (Shim et al., 2009). However, the negative effects of political insecurity and terrorism, through adversely impacting job opportunities, wages, and investment returns, ultimately impact citizens' financial well-being and stress levels (Gaibulloev et al., 2019). Due to similar circumstances in Kashmir, India, the level of financial well-being experienced by citizens may be low, eventually affecting their health and overall well-being, a key sustainable development goal (SDG 3) and the ultimate goal of Transformative Consumer Research (TCR) (Mick, 2006).

Previously, financial well-being was conceptualized as an individual's perception of their objective financial situation. As more research is conducted in this area, financial well-being is understood nowadays as a state of financial adequacy and safety in the present and the future. A more nuanced and widely accepted definition of financial well-being was propounded by the Consumer Financial Protection Bureau in the year 2015 (CFPB, 2015). Accordingly, financial well-being was defined as "a state of being in which a person can fully meet current and ongoing financial obligations, can feel secure in their financial future and can make choices that allow enjoyment of life". Following that, other researchers adopted a similar approach in their definitions (D'Agostino et al., 2020; Kempson et al., 2017; Michael Collins and Urban, 2020).

2.2. Financial Stress

A lack of financial well-being can raise financial anxieties and make a person suffer. Research suggests that a deficiency of financial resources, especially when compared with one's peers, is considered a primary source of financial stress (Heckman et al., 2014). Generally, a lack of financial well-being has been conceptualized as financial stress in the extant literature (Prawitz et al., 2006). In contrast, several researchers have described financial stress as a mix of physical arousal and emotional responses in reaction to a financial stimulus, such as an urgent or imminent expense (Grable et al., 2015). Extant literature includes approaches to financial stress as either an antecedent or a consequence of financial well-being (Nanda and Banerjee, 2021). In the context of job security and employment status, several studies have found that an individual's financial well-being is significantly associated with financial stress (Turner et al., 1991), while some others found that the concepts are not significantly related (Gaunt and Benjamin, 2007). Therefore, the association between financial well-being and financial stress calls for a more in-depth investigation. At a micro level, a positive financial well-being attitude may ease stress among individuals, thereby positively influencing their academic, personal, and social progress (Netemeyer et al., 2018; Utkarsh et al., 2020; Xiao et al., 2009). On the other hand, at a macro level, positive perceptions about the financial conditions of the economy are related to healthy well-being and longevity, which are the prerequisites for economic development (Gaibulloev et al., 2019). Therefore, the following hypothesis has been formulated based on these shreds of evidence.

H1: Financial well-being has a direct negative effect on financial stress.

2.3. Gender as a Moderator

Demographic attributes, such as gender, age, occupation, education, and income, have been studied as important variables in many financial well-being studies (Chatterjee et al., 2019; Fazli Sabri et al., 2012; Gerrans et al., 2014; Gutter and Copur, 2011; Hira and Mugenda, 1998; Joo and Grable, 2004; Michael Collins and Urban, 2020; Narges and Laily, 2011; Sahi, 2013; Vera-Toscano et al., 2006). Among different demographic variables, the role of gender is of specific importance due to a relatively poor understanding of gender issues in financial management (Falahati and Paim, 2012). Few researchers have investigated the effect of gender on financial well-being. However, extant research reveals a mix of contradictory findings on the role of gender in several financial well-being and financial stress studies. Most researchers report that females had lower financial well-being levels and higher levels of financial anxiety compared to their male counterparts (Gerrans et al., 2014; Gutter and Copur, 2011; Narges and Laily, 2011; Salignac et al., 2020). Unlike these researchers, Vera-Toscano et al. (2006) and Chatterjee et al. (2019) found that males had lower financial well-being levels. Accordingly, we formulate the following research hypothesis:

H2: Gender moderates the relationship between financial well-being and financial stress.

2.4. Conceptual Model

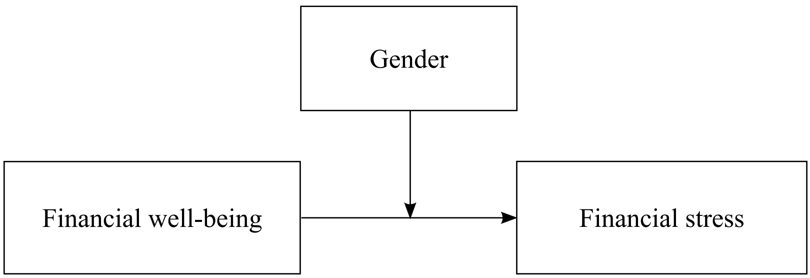

Figure 1. *Relationship between financial well-being and financial stress: the moderating role of gender*

3. Methods

3.1. Sampling and Data Collection

The present study has been conducted in the Kashmir Province of India. A total of 220 questionnaires using convenience sampling were distributed online through various platforms, such as Facebook, WhatsApp, Twitter, Instagram, and LinkedIn, to the citizens of various places in Kashmir using a Google web-based survey. The validity of web-based surveys as a method of data collection is confirmed by Krantz and Dalal (2000) and Gosling et al. (2004). Out of the 220 questionnaires, only 168 respondents filled in the questionnaires as required. For ascertaining the adequate sample size necessary for this study, the rule of thumb method was considered. Research directions relating to the selection of an adequate sample size suggest that the number of respondents should be at least ten times the number of questions in the questionnaire (Hair et al., 2010). Therefore, the required sample size for the study is 140 respondents. The data collection process has been carried out from August to September 2021 in the Kashmir Province of India.

3.2. Measurement

Financial Well-Being

The authors quantified financial well-being by eight items using the financial well-being scale developed by the Consumer Financial Protection Bureau (CFPB, 2017). Using a 5-point Likert scale, the scale measures aspects of one's financial situation and financial capability. All eight items in the scale are shown in *Table 1*. The sample reported a mean financial well-being score of 3.69 (SD = 0.910), with a range of 5.38.

Financial Stress

Financial stress was quantified by six items on a 5-point Likert scale using the InCharge Financial Distress Scale developed by Prawitz et al. (2006). All six items in the scale are shown in *Table 1*. The sample's average level of financial stress was 1.85 (SD = 0.648), with a range of 2.27.

Table 1. *Operationalization of constructs*

Main Constructs	Type (Reflective or Formative)	Measures	Reference
Financial Well-Being (FWB)	Reflective	FWB2: "I am securing my financial future." FWB3: "Because of my money situation, I feel like I will never have the things I want in life." FWB5: "I am just getting by financially." FWB6: "I am concerned that the money I have or will save won't last." FWB7: "Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month." FWB8: "I have money left over at the end of the month." FWB9: "I am behind with my finances." FWB10: "My finances control my life."	(CFPB, 2017)
Financial Stress (FS)	Reflective	FS1: "What do you feel is the level of your financial stress today?" FS2: "On the scale, mark how satisfied you are with your present financial situation." FS3: "How do you feel about your current financial situation?" FS4: "How often do you worry about being able to meet normal monthly living expenses?" FS6: "How often does this happen to you: You want to go out to eat, go to a movie, or do something else and don't go because you can't afford to?" FS8: "How stressed do you feel about your personal finances in general?"	(Prawitz et al., 2006)

3.3. Data Analysis

The primary objective of the current study was to examine the relationship between financial well-being and financial stress. The authors used AMOS 23.0 to perform a confirmatory factor analysis (CFA) to determine the acceptability and applicability of the scales in the Indian context. Furthermore, descriptive statistics for all the variables were conducted. The authors used a structural model (see *Figure 3*) and a multi-group analysis (see *Table 4*) to test the conceptual model.

3.4. Measurement Model

With a Likert scale of over five items, extant research considers maximum likelihood estimation as the best estimator (Checa et al., 2019; Utkarsh et al., 2020). Therefore, the current study used the most prevalent SEM estimation procedure, maximum likelihood estimation, to empirically evaluate the proposed research model.

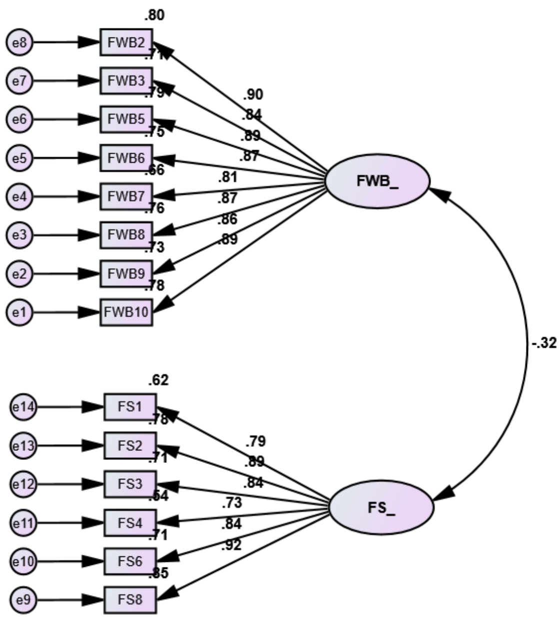

Figure 2. *Measurement model*

This was accomplished using AMOS software and a two-step structural equation modelling procedure. The measurement model was assessed in the first phase of the SEM. A confirmatory factor analysis (CFA) of the measurement model was performed using AMOS 23.0. To evaluate the measurement model (Hooper et al., 2008; Qureshi and Mehraj, 2021; Schreiber et al., 2006), multiple model fit indices were used. The

CR and Fornell and Larcker's (1981) criteria were used to assess convergent validity and discriminant validity respectively. The model for the CFA analysis is shown in *Figure 3*. The goodness-of-fit index provided by the measurement model is satisfactory. $\chi 2$ = 103.373, DF = 76, CMIN/df = 1.360, CFI = 0.988, IFI = 0.988, NFI = 0.957, GFI = 0.939, AGFI = 0.915, SRMR = 0.048, and RMSEA = 0.041 are the model fit indices for the CFA Model. An acceptable model fit was established by the measurement model (J. C. Anderson and Gerbing, 1988; Hair et al., 2006).

3.5. Convergent Validity

Figure 2 reveals that all factor loadings of the reflective constructs varied from 0.85 to 0.97, which exceeded the recommended level of 0.60. As a result of this test, items FWB1, FWB4, FS5, and FS7 were removed due to low factor loading to confirm convergent validity. Composite reliability (CR) was used to establish convergent validity, and the average variance was explained (AVE). To ensure convergent validity, the following criteria must be met: CR > 0.7, CR > AVE, and AVE > 0.5 (Hair et al., 2010; Qureshi and Mehraj, 2021). Both constructs had a CR value higher than 0.7 with an AVE higher than 0.5. Furthermore, the CR statistics is significantly higher than the related AVE value for both individual constructs (*Table 2*). As a result, both constructs met the prerequisites of convergent validity (Hair et al., 2010; Qureshi and Mehraj, 2021).

Table 2. *Confirmatory factor analysis results*

Constructs	*Item Code*	*Estimate*	*CR*	*AVE*	*MSV*	*Discriminant Validity*	
						FWB	*FS*
Financial Well-Being	*FWB10*	*.885*	*0.960*	*0.750*	*0.103*	***0.866***	
	FWB9	*.857*					
	FWB8	*.873*					
	FWB7	*.815*					
	FWB6	*.868*					
	FWB5	*.887*					
	FWB3	*.844*					
	FWB2	*.896*					
Financial Stress	*FS8*	*.920*	*0.933*	*0.701*	*0.103*	*-0.320*	***0.837***
	FS6	*.840*					
	FS4	*.733*					
	FS3	*.842*					
	FS2	*.886*					
	FS1	*.790*					

3.6. Discriminant Validity

In addition to convergent validity, establishing the discriminant validity of the measurement is also important, which is evaluated using Fornell and Larcker's (1981) measure of average variance extracted (AVE) (Fornell and Larcker, 1981; Hair et al., 2010). The square root of a construct's AVE must be larger than the correlations between the construct and the other constructs in the model in order to meet the discriminant validity criteria (Qureshi and Mehraj, 2021). Furthermore, the prerequisite criteria (MSV < AVE) should be satisfied by each construct. *Table 2* clearly shows that the square roots of all constructs' AVEs are greater than the correlations between the two constructs. Constructs have an acceptable discriminant validity because these diagonal values are greater than the off-diagonal values in the corresponding rows and columns (Hair et al., 2010). Similarly, MSV < AVE is found for both constructs in the results (see *Table 2*). Therefore, both separate constructs met the criteria for discriminant validity (Hair et al., 2010).

4. Results

The descriptive characteristics of the sample are presented in *Table 3*.

To measure the impact of financial well-being on financial stress, the current study used a structural model. Extant research suggests that the structural model provides an adequate goodness-of-fit index (J. C. Anderson and Gerbing, 1988; Hair et al., 2006). The model fit indices for SEM Model are: $\chi 2 = 81.650$, DF = 76, CMIN/df = 1.074, CFI = 0.988, IFI = 0.988, NFI = 0.957, GFI = 0.939, AGFI = 0.915, SRMR = 0.027, and RMSEA = 0.019.

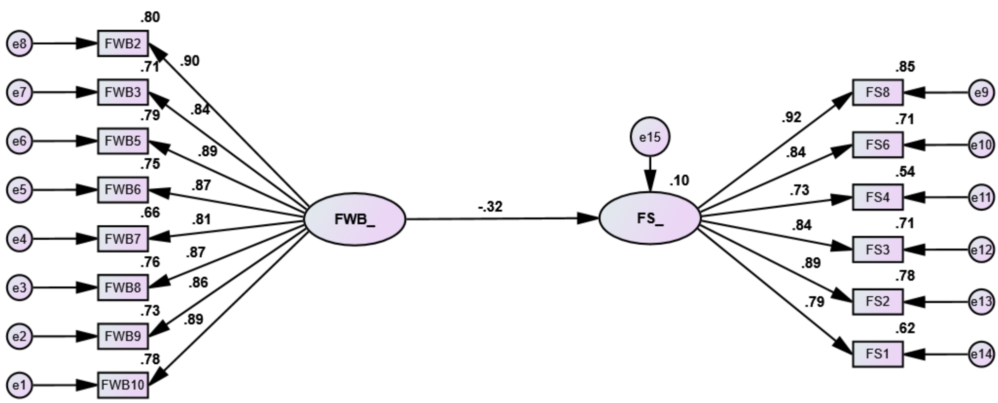

Figure 3. *Results of the SEM model*

The given path (FWB-FS) has a critical ratio of -4.49; the significant beta coefficient of the stated path confirms the significant negative effect of financial well-being on financial stress (β = -0.320***, R^2 = 0.10, P < 0.05). *Figure 3* depicts the results of the association between financial well-being and financial stress.

H1 tested whether *financial well-being has a direct negative effect on financial stress*. As per the results of the structural model shown above (*Figure 3*), financial well-being is negatively related to financial stress. The results imply that positive perceptions about financial well-being are inversely related to financial stress.

Table 3. *Descriptive statistics of the sample (N = 168)*

Variables	N	%	M	SD
Income				
Less than Rs 20,000	25	14.6%		
Rs 21,000 to Rs 30,000	20	12.2%		
Rs 31,000 to Rs 40,000	27	15.9%		
Rs 41,000 to Rs 50,000	18	11%		
Rs 51000 to Rs 60,000	12	7.3%		
Above Rs 60,000	66	39%		
Age				
Below 18 years	27	16.07%		
Between 19 and 30 years	52	30.95%		
Between 31 and 40 years	41	24.40%		
Between 41 and 50 years	29	17.26%		
Above 50 years	19	11.31%		
Marital status				
Married	70	41.5%		
Employment status				
Employed	80	47.6%		
Unemployed	88	52.3		
Education				
Less than a high school diploma	2	1.2%		
High school diploma or equivalent degree	10	6.1%		
Bachelor's degree	25	14.6%		
Master's degree	111	65.9%		
PhD	20	12.2%		
Gender				
Male	88	52.3%		
Financial well-being			3.69	.910
Financial stress			1.85	.648

4.2. A Moderation Model

To determine the impact of gender as a moderator of the relationship between financial well-being and financial stress, the authors ran a multi-group analysis. First, the model was evaluated separately for males and females to ensure that each group had a good fit. The two groups were then compared to the variable group. Then, a constrained model with no structural parameters differing between the two subgroups of respondents was compared to an unconstrained model with all structural parameters that could be changed between the two subgroups. A comparison of the $\chi 2$ (CMIN), DF, and significance (p) between the Unconstrained and Measurement Residuals revealed that each model was significant ($p < .05$). Results indicate that gender (male, female) has a significant moderating effect on financial well-being and financial stress associations. The results of the moderating effect are shown in *Table 4* below.

Table 4. *Moderation effect*

Independent Variable	*Gender*	*B*	*C.R.*	*Significance*
Financial Well-Being	*Male*	*-0.275*	*-2.99*	*.003*
	Female	*-0.235*	*-2.45*	*.014*
Dependent variable: financial stress				

H2 tested whether *gender moderates the relationship between financial well-being and financial stress.* As per the results of the moderation effect (*Table 4*), there are substantial effects of gender (male, female) on the hypothesised relationship. Results imply that males are financially better off than females.

5. Discussion

The current study investigated the relationship between financial well-being and financial stress while examining whether gender moderates the established relationship. The findings of the study support the previous body of knowledge that people with higher financial well-being levels experience less financial stress compared to people with lower financial well-being levels. Further, the study proposed that gender is an important intervening mechanism that explains the associations between financial well-being and financial stress. Although people experiencing higher financial well-being levels are more likely to experience less financial stress, this relationship differs by gender, with males having a stronger relationship than females. In other words, the financial well-being of males and the resulting financial stress are more evident. This finding is commensurate with the findings of previous researchers who report that achieving financial independence is more difficult for females (Salignac et al., 2020) and also that terrorism and political insecurity have a more significant impact on the perceived financial situation of females than on that of males (Gaibulloev et al., 2019).

The current study adds to the extant and growing literature on financial well-being by demonstrating the moderating role of gender in the significant association between financial well-being and financial stress. At the same time, our results are in correspondence with the small body of previous research on citizens' financial well-being and stress (Choi et al., 2020; Turner et al., 1991; Utkarsh et al., 2020), especially in the context of a developing economy affected by terrorism and political insecurity. We have demonstrated the strong relationship between financial well-being and financial stress, which has been generally overlooked in the literature, as a progression of previous research. Our research provides some evidence that financial well-being could challenge financial stress. This is primarily because a positive outlook on financial well-being can enhance individuals' academic, personal, and social prosperity (Netemeyer et al., 2018; Shim et al., 2009). As such, the current study contributes to understanding the relationship between financial well-being and financial stress and the moderating processes through gender on that relationship.

The current findings on subjective perceptions of financial well-being and financial stress may help scholars to better understand the consequences of financial well-being and the antecedents of financial stress. However, given the contributions, the current study suffers from a few limitations: First, we measured financial well-being using subjective measures alone. Future studies could use a combination of objective measures (e.g. debt-to-income ratio, saving rates, or investment) and subjective measures of financial well-being, as proposed by previous research (Diener and Seligman, 2004). Second, the current study used a convenience sampling method. Future researchers can employ more systematic and robust sampling methods considering national or interstate regions of India. Finally, we believe that qualitative data in the area would provide further valuable answers to how financial stress is shaped by financial well-being.

6. Conclusions

The current study is possibly the first investigation to understand the relationship between the financial well-being and financial stress of citizens adversely affected by terrorism in the context of a developing economy. By establishing financial well-being as an important antecedent to financial stress, this study adds to the existing predictors of the latter. Our study has implications for academia or future researchers, policymakers, and financial institutions aiming at maximizing individuals' health and well-being, which has been listed as a crucial Sustainable Development Goal (SDG 3) and the goal of the Transformative Consumer Research (TCR) movement. Policymakers must focus on key antecedents to financial well-being to find ways to formulate the necessary programmes, strategies, and interventions aimed at managing financial stress, including both financially vulnerable and financially invulnerable groups.

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