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# Symmetric and Asymmetric Effects of Attitude and Satisfaction on Sustainable Business Growth

Sheikh Ashiqurrahman Prince <sup>1,\*</sup>, Md Mominur Rahman <sup>1,\*</sup> and Sayed Azharul Islam <sup>2</sup>

<sup>1</sup> Bangladesh Institute of Governance and Management (BIGM), University of Dhaka, Dhaka (1207), Bangladesh

<sup>2</sup> Human Resource Management Discipline, Khulna University, Khulna (9208), Bangladesh

\* Correspondence: sheikh.prince@bigm.edu.bd; Tel.: +8801777162231; mominurcou@gmail.com; Tel.: +8801789243497

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**Abstract:** Microfinance plays a crucial role in fostering economic development, especially in underserved and impoverished communities. Using stimulus-organism-response (SOR) theory, the study investigates how microfinance, cost of loan, and individual funding and support affect borrowers' business attitudes and sustainable business growth, as well as the impact of satisfaction with these sources. The study collected 845 data points from the Khulan division of Bangladesh using a convenient sampling technique and analyzed them with Smrt Pls 4 and fsQCA 3 software. The results indicated that microfinance, cost of loan individual finding, and support significantly affect borrowers' business attitudes which in turn has a positive effect on sustainable business growth. The findings further show that apart from the relationship between microbusiness and business attitudes, business satisfaction does not moderate the relationships between cost of loan and business satisfaction as well as individual finding and support and business satisfaction. The study suggests insightful recommendations for academics, MFIs, and policymakers for poverty reduction through ensuring sustainable business conducted by microfinance. This study introduces two new concepts i.e., individual funding and support and business satisfaction as well as a new theory i.e., SOR in microfinance research, extending the theory's applicability, and research scope, and providing new suggestions for further research.

**Keywords:** Microfinance; Cost of Loan; Borrowers' Satisfaction; Business Attitudes; Sustainable Business Growth; Stimulus-Organism-Response (SOR) Theory

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## 1. Introduction

The sustainability and growth of small businesses are critical to economic development, particularly in emerging markets [1]. Small business owners frequently encounter significant barriers, especially in accessing financial resources necessary for their growth and sustainability [2]. Microfinance has been widely recognized for its potential to foster entrepreneurship and reduce poverty by providing financial services to entrepreneurs who lack access to traditional banking systems [3].

Microfinance alone is not a silver bullet for poverty reduction; rather, the use of funds by borrowers, their business acumen, and the support they receive play critical roles in determining outcomes [4]. In addition, having a positive outlook towards business is crucial for borrowers which can help them effectively manage the loan, make timely repayments, create performance pressure,

stay motivated, and ultimately succeed in their entrepreneurial pursuits [5]. Business satisfaction also plays a pivotal role in driving business growth as satisfied entrepreneurs may find it easier to drive them to utilize microfinance effectively [6-9].

Therefore, understanding the intricate dynamics between microfinance costs, individual funding and support mechanisms, and borrower satisfaction is essential for designing effective microfinance programs that not only meet the financial needs of entrepreneurs but also promote sustainable business growth.

In the existing microfinance business research, Mahmood [10], Indarti [11], and Akula and Singh [12] suggested that microfinance has a significant effect on borrowers' business attitudes. Basharat *et al.* [13] and Shabrina *et al.* [14] further confirmed that cost of loan of microfinance also influences borrowers' business attitudes. Therefore, those variables comprise a significant component of our study. Previous studies further claimed that individual funding and support influence the business attitudes of students [15], business investors [16] and entrepreneurs [17]. While individual funding and support have been investigated by other research areas, microfinance research has yet to examine this aspect. Therefore, our study aims to fill this knowledge gap by including the above construct in this microfinance research. Business attitudes affect sustainable business growth in the common business [18], microbusiness [19], family business [20], and entrepreneurial research. Hence, the authors assume that a positive business attitude will have an impact on the sustainable growth of businesses that use microfinance and include the construct in this study.

In addition, Agarwal and Pokhriyal [5] revealed that attitude towards risk moderates a relationship in the field of microcredit research. However, they did not investigate whether business satisfaction can moderate any relationship in the above-mentioned research domain. Prince *et al.* [21] further suggested that motivation significantly mediates a relationship in microcredit business. However, limited studies have investigated whether business attitude mediates a relationship in the field of microfinance research. Based on the knowledge gap, our study develops the following research questions:

1. How microfinance, cost of loan and individual funding and support affect borrowers' business attitudes which in turn affect sustainable business growth.
2. How business satisfaction moderates the relationship between a) microfinance, b) cost of loan and c) individual finding and support and borrowers' business attitudes.

By studying these elements, microfinance institutions can develop more targeted and comprehensive support programs that foster financial literacy, resilience, and positive business practices. This approach can lead to more sustainable growth for businesses, ultimately contributing to broader economic development and poverty alleviation. Understanding these dynamics is essential for refining microfinance strategies to better support borrowers in achieving long-term business success.

The study structure follows a logical progression. The literature review presents relevant scholarly works and prior investigations linked to the research issue. Five interconnected themes are explored: theoretical background (justification for using the Stimulus-Organism-Response theory), microcredit and capital creation, microcredit's relationship with business attitude, cost of loan's impact on business attitude, individual funding and support's effect on business attitude, business attitude's influence on sustainable growth, moderating effects of borrowers' business satisfaction,

and mediating effects of business attitude. The methodology section outlines the research framework, including survey area, sampling technique, data acquisition, and research construct assessment. Results entail statistical analyses, data evaluation, measurement model assessment, and PLS-SEM and fsQCA analyses to test hypotheses and draw conclusions. The discussion and recommendations critically analyze research issues, summarize key findings, explore contradictions with prior research, and discuss implications for administrators and researchers.

## 2. Literature Review

### 2.1. Theoretical Background

The Stimulus-Organism-Response (SOR) theory is a psychological model that explains how external stimuli affect an individual's behavior and emotions [22, 23]. The theory was first proposed by Woodworth [24] in 1929 as an expansion of Pavlov's classic theory of the stimulus-response mode. According to the SOR model, stimuli (S) are external factors that affect the internal state of an individual. Organism (O) refers to the internal processes of the structure of the individual, including their personality, emotions, and cognitive processes intervening between stimuli external and the final action [25]. Response (R) is the final behavior or action taken by the individual in response to the stimulus and organism [22, 26]. The model helps in understanding the causes behind an individual's behavior and hence it is applied in addressing human behavior-related issues.

The SOR model has become one of the most used frameworks that integrate input, process, and outputs in a single model. This model largely helps in understanding the causes behind an individual's behavior and hence it is applied in addressing human behavior-related issues [22, 27, 28, 29-31].

**Table 1.** Variables examined and major findings on microfinance and or entrepreneurship research.

References	Variables examined	Findings
Mahmood [10]; Karlan and Zinman [32]; Indarti [11]; Banerjee <i>et al.</i> [4]; Akula and Singh [12]; Basharat <i>et al.</i> [13]; Prince <i>et al.</i> , [33]; Nguyen <i>et al.</i> [15]; Ha and Kim [16]; Pinkovetskaia <i>et al.</i> [17]; Purba and Tan [20]; Alshebami [18]; Agarwal and Pokhriyal [5]; Braidford <i>et al.</i> [19]; Shabrina <i>et al.</i> [14]; Saki <i>et al.</i> [6]; Yunxian <i>et al.</i> [7]; Hassan <i>et al.</i> [8], and Kumari and Prakash [9]; Prince <i>et al.</i> [21]; Amin <i>et al.</i> [34].	Microfinance, business attitudes, Cost of loan, Individual funding sources, Risk attitude, sustainable business growth.	<p><b>Favourable factors</b></p> <p>Microfinance, cost of loan and individual funding sources influences business attitudes. Business attitudes effects sustainable business growth. Risk attitude moderate's microfinance, loan costs, and business attitudes. Motivation and consumer attitude play a mediating role.</p> <p><b>Obstacles</b></p> <p>Cost of loan inhibits sustainable business growth.</p>

Table 1 shows the factors analyzed as well as the important results on microfinance and entrepreneurship research that the current study addressed while developing the conceptual model and associated hypotheses.

The following section describes the links between the different variables identified in the research questions of the study.

### 2.2. Microfinance and Business Attitude

Microfinance is a type of service that provides small, unsecured loans, savings, and insurance to local indigent entrepreneurs and low-income people who do not have access to traditional banking services [35]. The term- microfinance emerged with the work of Muhammad Yunus and the Grameen Bank in Bangladesh which refers to a collateral free loan generally offered to the poor people who are out of coverage of formal bank loans [36, 37]. It has become a tool for poverty alleviation and economic development around the world, especially in the developing nations [38, 39].

Any firm needs capital, which MFIs frequently provide via the microfinance mechanism [40]. Microfinance can be characterized as an external factor or stimuli in accordance with the SOR model. It is theoretically anticipated that the stimuli will influence the borrowers' internal state. One of those mental states can be the business attitude of the entrepreneurs. Numerous investigations have previously looked into the connection and discovered a strong correlation between microfinance and business attitude. For instance, Mahmood [10] discovers that taking out a loan from an MFI led to the borrowers' ambition to establish their own business. Put another way, those would-be business owners might not launch their ventures if there were no means of microfinance. According to Karlan and Zinman [32], microfinance can enhance an individual's self-confidence and risk-taking tendency which are essentials in establishing and operating a business. Indarti [11] states that along with loans, MFIs offer education and training, which are frequently included in microfinance programs, have a favorable impact on developing a positive business attitude towards entrepreneurship. Banerjee *et al.* [4] found that access to microfinance has the potential to enhance business activity and aspirations among the borrowers. According to Akula and Singh [12], women entrepreneurs who receive microfinance tend to attain positive business attitude. Based on the SOR theory, which claims that external stimuli influence an individual's internal state, we have suggested that microfinance could be one such external factor that contributes to the positive business attitude observed in the literature. In the light of the above discussion, we propose the following hypothesis.

*H<sub>1</sub>: Microfinance has a positive effect on business attitude.*

### *2.3. Cost of Loan and Business Attitude*

The cost of a loan for borrowers is determined by the amount borrowed, the interest rate, and the repayment period. Microfinance normally charges higher rate of interest on loan which has the potential to affect the business attitude of the borrowers [3]. Despite charging higher interest rate than other financing options, the recovery rate of microfinance is satisfactory and most of the MFIs are doing business profitably. This is because the MFIs keep the borrowers engaged through loan recovery mechanism for instance collecting weekly or monthly installments [2]. In line with that Basharat *et al.* [13] acknowledge the role of cost of loan on the efficiency of microfinance. Shabrina *et al.* [14] again state that the business attitude of entrepreneurs is positively motivated when the MFIs use a fixed pricing system. Prince *et al.* [33] further stated that high interest inhibits microbusiness from generating desired level of capital. This indicates that there is significance variation of entrepreneurial attitude due to change in the cost of loan perceptions among the borrowers. Therefore, it is obvious that high interest rates and strict repayment mechanism may generate stress, anxiety, and depression among the borrowers. To put simply, entrepreneurs are more inclined to adopt a positive business attitude when they have access to low-cost loans. Based on the above discussion, this study assumes that business attitude of microfinance borrows is affected by cost of loan and thus proposes the following hypothesis.

*H<sub>2</sub>: Cost of loan of microfinance influences business attitude.*

#### 2.4. Individual Funding and Support and Business Attitude

Individual funding and supports include some common financing source like crowdfunding, venture capital, angel investments, own property, family sources and so on. These sources of financing may have significant effects on the business attitude of the entrepreneurs. Individual funding sources have a higher potential to affect business attitudes because of direct and very close interaction with the borrowers. They also stated that individual funding sources like crowdfunding do not only provide loan to the business, but also validate the prospects of the business through personal mentoring and monitoring. This opportunity for personal mentoring develops a higher level of self-efficacy among the entrepreneurs.

In this connection, Nguyen *et al.* [15] found that financial support from family members had a substantial impact on students' entrepreneurial mindsets when considering launching their own firms. Ha and Kim [16] further claim that fund availability creates a higher level of business attitude among business investors. In addition, Pinkovetskaia *et al.* [17] states that individual funding and support play a significant role in developing business attitude among prospective entrepreneurs. In summary, entrepreneurs who receive personal funding and support are more likely to develop a positive business attitude. Although those studies claimed that individual funding and support positively affect business attitude, limited studies investigated the relationship in microfinance research. Based on the knowledge gap, this study assumes that the relationship will be applicable in microfinance research, and thus proposes the following hypothesis to test:

*H<sub>3</sub>: Individual funding and support positively affect the investors' business attitude.*

#### 2.5. Business Attitude and Sustainable Growth

Business attitude refers to the way a borrower approaches their business. It is a combination of their beliefs, values, and behaviors that affect their business decisions and interactions with others [5, 21]. In contrast, sustainable business growth means the realistically achievable growth that a firm could maintain without equity, debt or borrowing from outside sources [41]. Entrepreneurs who secure loans from MFIs for their businesses must ensure sustainable growth in their operations; otherwise, they will struggle to repay the principal and interest on the credit. Credit serves as essential seed money and is widely regarded as the foundation for building businesses [40]. However, credit alone is not a cure-all, as not all participants in microfinance programs achieve success [41]. Business attitudes are crucial to the development of small enterprises because the techniques and approaches used by entrepreneurs vary based on their attitudes [19, 42].

In this context, Indarti [11] found that the success and growth of micro, small, and medium-sized businesses are influenced by an entrepreneurial mindset. Purba and Tan [20] further add that attitude of owners have a significant effect on sustainable growth. In a similar vein, Alshebami [18] recognizes the impact of an entrepreneur's psychological traits or business philosophy on the long-term sustainability of their business. The literature clearly indicates that business attitude affects a firm's ability to grow sustainably. Accordingly, this study proposes the following hypothesis, aligned with the existing literature:

*H<sub>4</sub>: Business attitude has a significant effect on sustainable business growth.*

### 2.6. Moderating Effects of Borrowers' Business Satisfaction

A moderating variable is a one that influences the strength or direction of the relationship between an independent variable and a dependent variable [43]. Recent studies, including those by Saki *et al.* [6], Yunxian *et al.* [7], Hassan *et al.* [8], and Kumari and Prakash [9] have identified borrowers' business satisfaction as a significant variable in entrepreneurship research. Although Borrowers' business satisfaction is crucial for successful business operations, there is a notable deficiency in business satisfaction among microfinance borrowers, as highlighted by Al-Shami *et al.* [44].

Our study suggests that variations in microfinance borrowers' satisfaction with their businesses may explain differences in the effects of microfinance, loan costs, and individual funding and support on business attitudes. Despite its importance, few studies have investigated whether business satisfaction moderates these relationships. Agarwal and Pokhriyal [5] demonstrated that attitude toward risk moderates the effects of microfinance, loan costs and business attitudes. Therefore, this study introduces borrowers' satisfaction as a moderator in microfinance research and proposes the following three hypotheses:

*H<sub>5</sub>: Borrowers' satisfaction moderates the relationship between microfinance and business attitude.*

*H<sub>6</sub>: Borrowers' satisfaction moderates the relationship between the cost of loan and business attitude.*

*H<sub>7</sub>: Borrowers' satisfaction moderates the relationship between individual funding and support and business attitude.*

The conceptual model (Figure 1) which is developed using SOR theory shows that stimulus (S) is the microfinance, cost of the loan and individual finding and support as they are the external factors. Organism (R) are the borrowers' business attitude and satisfaction as these are the internal state of mind of an individual. Finally, response (R) is the sustainable business growth which is the action taken by an individual borrower. Figure 1 depicts that microfinance, cost of loan and individual funding and support affect borrowers' business attitudes which in turn affect sustainable business growth. Figure 1 further shows that business satisfaction moderates the relationship between a) microfinance, b) cost of loan and c) individual finding and support and borrowers' business attitudes.

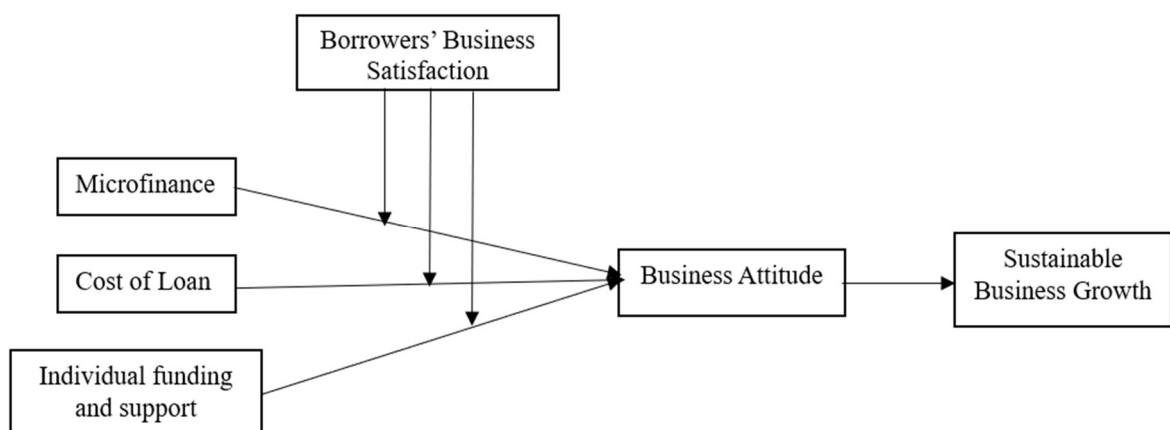


Figure 1. Conceptual model.

## 3. Methodology

### 3.1. Data and Sample

Data was gathered between October and December 2023 through personal visits to ten districts within the Khulna division of Bangladesh, namely Bagerhat, Chuadanga, Jessore, Jhenaidah, Khulna, Kushtia, Magura, Meherpur, Narail, and Satkhira. The snowball sampling technique was utilized to select borrowers from various national and local Microfinance Institutions (MFIs). The study's participants had an average age of approximately 40 years, with an average monthly income of around 18,500 takas. On average, respondents had a family size of five members, including two children.

### 3.2. Measurement Instruments

The microfinance measure was derived from various sources, including studies by Iqbal *et al.* [45] and Agarwal and Pokhriyal [5]. The Cost of Loan was also examined in the research conducted by Iqbal *et al.* [45] and Prince *et al.* [33]. Borrowers' Satisfaction was assessed based on the findings of Iqbal *et al.* [45]. Borrowers' Business Attitude was analyzed using studies by Karambut *et al.* [46], Macha *et al.* [47]. Lastly, Sustainable Growth (SG) was explored in the research conducted by Xiong and You [48] and Agarwal and Pokhriyal [5]. The authors presented a fresh idea of individual funding and support, which had not been explored in previous studies. The source of this construct is therefore nonexistent.

### 3.3. Method of Analysis

In this section, the chosen methodological approach for the study is outlined, incorporating two distinct analytical methods: Partial Least Squares Structural Equation Modeling (PLS-SEM) and Fuzzy Set Qualitative Comparative Analysis (fsQCA). PLS-SEM was selected as the symmetrical analytical tool for its relevance in exploring complex relationships within the context of business attitude and sustainable growth [49]. PLS-SEM is particularly well-suited for examining latent variable models with small sample sizes, non-normal data, and when the emphasis is on prediction rather than explanation [50]. Given the intricate nature of the factors influencing sustainable growth and the potential existence of latent constructs that may not be directly observable, PLS-SEM provides a robust and flexible framework. It enables simultaneous assessment of the measurement model and structural model, allowing for the identification of both direct and indirect effects in a single analysis [50-52].

PLS-SEM may be sensitive to certain modeling conditions, such as sample size and model complexity [49]. Unlike PLS-SEM, fsQCA takes an asymmetrical approach, focusing on identifying various configurations of conditions that contribute to sustainable growth [53]. Additionally, it assumes linear relationships between variables, which may not capture the complexity and non-linearity inherent in certain real-world phenomena [54]. To address these limitations and provide a more nuanced understanding of the relationships under investigation, Fuzzy Set Qualitative Comparative Analysis (fsQCA) is employed as a complementary analytical tool. The fsQCA is particularly advantageous in dealing with complex, non-linear relationships, and it accommodates the presence of fuzzy sets, capturing the essence of qualitative variations in the data [55]. By adopting a set-theoretic approach, fsQCA allows for the identification of various pathways leading to sustainable growth, accounting for multiple configurations of conditions [56]. This approach is pivotal in uncovering the nuanced conditions and interactions that contribute to or impede sustainable growth, offering a more holistic understanding beyond what linear models may capture.

## 4. Results

The results section unfolds with an examination of demographic characteristics before delving into the analytical outcomes of the study. Initially, the symmetrical relationships are scrutinized through PLS-SEM. Following this, the asymmetrical dimensions are explored fsQCA, shedding light on nuanced configurations of conditions. This comprehensive presentation of results aims to unravel the multifaceted dynamics characterizing the relationship between business attitudes and sustainable growth.

4.1. Analysis of PLS-SEM

**Table 2.** Measurement model analysis.

Constructs	Items	FL	VIF	CA	CR	AVE
Business Attitude	AT 01	0.854	2.394	0.871	0.907	0.662
	AT 02	0.831	2.292			
	AT 03	0.841	2.267			
	AT 04	0.827	2.137			
	AT 05	0.706	1.425			
Business Satisfaction	BS 01	0.551	1.549	0.708	0.804	0.524
	BS 02	0.463	1.485			
	BS 03	Dropped*	-			
	BS 04	0.889	2.374			
	BS 05	0.888	2.365			
Cost of Loan	CL 01	0.867	2.239	0.875	0.914	0.727
	CL 02	0.814	1.936			
	CL 03	0.867	2.299			
	CL 04	0.862	2.247			
Individual Fund-Support	IFS	Dropped*	-	0.800	0.854	0.598
	IFS 02	0.630	1.440			
	IFS 03	0.693	1.689			
	IFS 04	0.877	1.850			
	IFS 05	0.863	1.606			
Micro Finance	MF 01	0.850	2.112	0.828	0.869	0.578
	MF 02	0.882	2.432			
	MF 03	0.840	1.959			
	MF 04	0.579	2.095			
	MF 05	0.592	2.057			
Sustainable Growth	SG 01	0.659	1.608	0.905	0.925	0.608
	SG 02	0.615	1.458			
	SG 03	0.841	2.610			
	SG 04	0.828	2.554			
	SG 05	0.779	2.199			
	SG 06	0.822	2.597			
	SG 07	0.831	2.633			
	SG 08	0.827	2.517			

Note: FL=Factor loading, CA= Cronbach's alpha, CR=Composite reliability, AVE=Average variance extracted, \*=values less than 0.45 are dropped.

The analysis of PLS-SEM unfolds through a systematic three-step process [49]. First, the Measurement Model Analysis scrutinizes the reliability and validity of latent constructs, ensuring a robust foundation for subsequent assessments. Following this, the Structural Model Analysis explores the relationships between constructs, elucidating both direct and indirect effects within the specified model. The culmination of this process lies in Hypothesis Testing, where the formulated hypotheses



are rigorously examined, offering statistical validation and insight into the significance of the relationships posited.

Table 2 presents the outcomes of the Measurement Model Analysis, employing various metrics to assess the reliability and validity of constructs within the PLS-SEM framework. Factor loadings (FL) reflect the strength of the relationship between items and constructs, with a threshold of 0.45 used to identify items providing insufficient contribution to construct measurement, leading to their exclusion [57]. Variance Inflation Factor (VIF) values, while lacking a strict cutoff, are scrutinized for potential multicollinearity, with values above 5 suggesting the need for consideration and potential elimination of items to enhance measurement independence [49, 58-59].

Cronbach's Alpha (CA) and Composite Reliability (CR) assess internal consistency reliability, with values above 0.7 considered acceptable. A higher alpha or CR signifies stronger reliability, ensuring that items within a construct reliably measure the same underlying concept [57, 60-61]. Items with lower values may be indicative of decreased internal consistency. Average Variance Extracted (AVE) measures convergent validity, with values above 0.5 considered acceptable [42, 59, 62]. Higher AVE indicates effective capture of construct variance relative to measurement error. Items with lower AVE values might not be contributing adequately to the construct's true variance. Notably, items marked "Dropped" in Table 1 signify instances where factor loading values fell below the 0.45 threshold, indicating their exclusion from the measurement model. This stringent approach ensures the model's reliability and validity, aligning with established best practices in structural equation modeling. The consistent application of these thresholds contributes to a robust measurement foundation for subsequent analyses within the PLS-SEM framework.

**Table 3.** Discriminant validity using Fornell-Larcker criteria and HTMT.

<b>Fornell-Larcker criteria</b>	<b>Business Attitude</b>	<b>Business Satisfaction</b>	<b>Cost of Loan</b>	<b>Individual Fund-Support</b>	<b>Micro Finance</b>	<b>Sustainable Growth</b>
Business Attitude	0.814					
Business Satisfaction	0.601	0.724				
Cost of Loan	0.569	0.571	0.853			
Individual Fund-Support	-0.137	-0.153	-0.117	0.773		
Micro Finance	0.558	0.600	0.802	0.005	0.760	
Sustainable Growth	0.715	0.767	0.667	-0.133	0.719	0.780
<b>HTMT matrix</b>						
Business Attitude	-					
Business Satisfaction	0.692	-				
Cost of Loan	0.648	0.647	-			
Individual Fund-Support	0.130	0.185	0.120	-		
Micro Finance	0.582	0.630	0.893	0.230	-	
Sustainable Growth	0.804	0.849	0.744	0.135	0.771	-

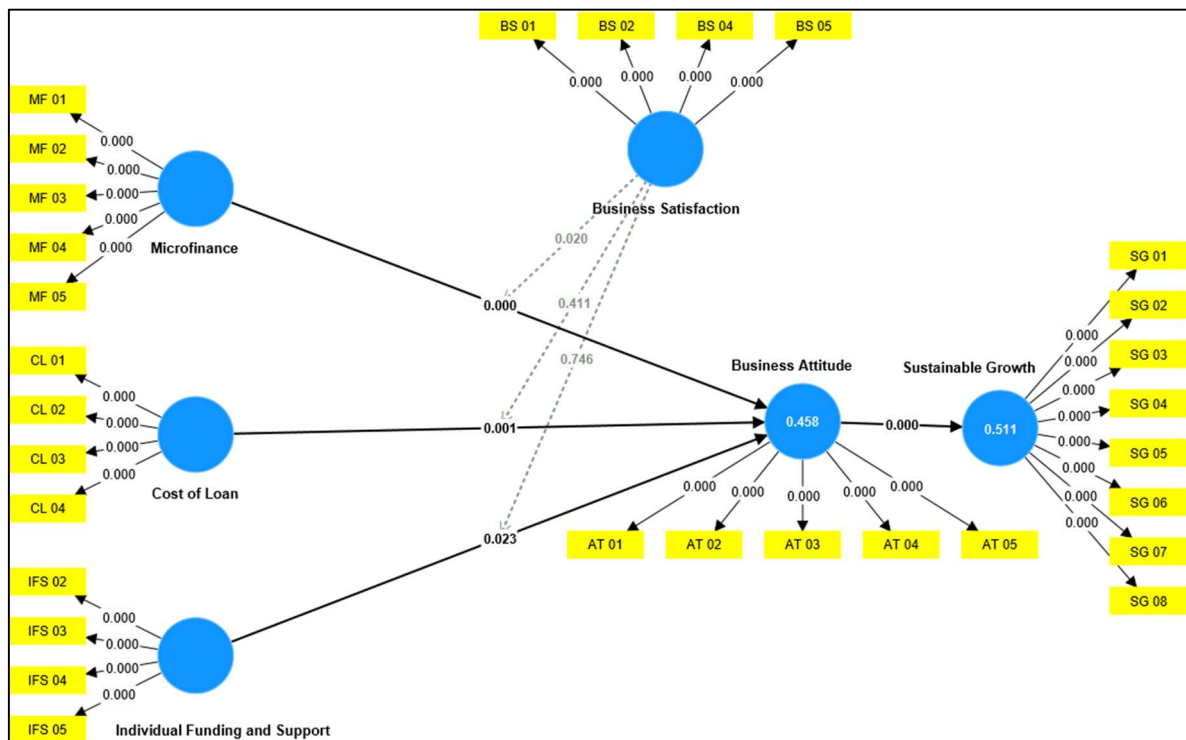
Table 3 presents the results of discriminant validity assessments utilizing both the Fornell-Larcker criteria and the Heterotrait-Monotrait (HTMT) ratio of correlations. Discriminant validity is crucial to ensure that different constructs in a measurement model are distinct from each other [50]. The diagonal values in the Fornell-Larcker matrix represent the square root of the Average Variance Extracted (AVE) for each construct. The values below the diagonal indicate the correlation between constructs. According to Fornell-Larcker criteria, discriminant validity is achieved when the square root of AVE for each construct is greater than the correlation between that construct and other

constructs [49, 60]. In Table 3, all diagonal values exceed the corresponding correlation values below the diagonal, suggesting satisfactory discriminant validity. For example, the discriminant validity for the "Business Attitude" construct is confirmed as its square root of AVE (0.814) is higher than its correlations with other constructs (ranging from 0.558 to 0.715).

The HTMT matrix assesses the ratio of correlations between constructs. Discriminant validity is established when the HTMT values are below a certain threshold, commonly considered as 0.90 [49, 62]. In Table 3, all HTMT values are below the 0.90 threshold, indicating that the constructs are distinct from each other. For instance, the HTMT value for "Business Attitude" with other constructs ranges from 0.558 to 0.804, all below the 0.90 threshold, confirming discriminant validity. Thus, both the Fornell-Larcker criteria and HTMT ratios consistently demonstrate that the constructs in the measurement model exhibit satisfactory discriminant validity [53, 57]. This affirms that each construct is distinct and effectively measures a unique aspect of the underlying phenomena in the study.

The structural model, depicted in Figure 2, serves as a critical component in the PLS-SEM analysis. It visually represents the hypothesized relationships between latent constructs, illustrating both direct and indirect effects within the theoretical framework. Regarding the fit of the structural model, several indices are considered. The Standardized Root Mean Square Residual (SRMR) is reported as 0.078, falling below the commonly accepted threshold of 0.08. This value indicates a satisfactory fit, with lower SRMR values suggesting a closer alignment between observed and predicted covariance matrices [49, 51].

The Chi-square ( $\chi^2$ ) value, reported as 2963.517, is deemed insignificant. While Chi-square is a conventional fit index, its sensitivity to sample size can lead to statistical significance in large samples. In this case, the insignificance of Chi-square suggests that the model fits the data well, although it's crucial to acknowledge potential limitations in its interpretation for larger samples [49, 62].



Note: SRMR=0.078, Chi-square=2963.517 (insignificant), R-square=0.458 (Business Attitude), 0.511 (Sustainable Growth), and NFI=0.813.

Figure 2. Structural model diagram.

The R-square values provide insights into the explanatory power of the model. For "Business Attitude," the R-square is 0.458, indicating that 45.8% of the variance in business attitude is explained by the model. Similarly, for "Sustainable Growth," the R-square is 0.511, signifying that 51.1% of the variance in sustainable growth is explained. Higher R-square values are generally desired, indicating a stronger explanatory capability of the model. Lastly, the Normed Fit Index (NFI) is reported as 0.813, suggesting a reasonably good fit. While no strict cutoff exists for NFI, values above 0.80 are commonly considered acceptable [49]. Collectively, these fit indices, including the SRMR, insignificant Chi-square, R-square values, and NFI, provide assurance regarding the adequacy of the structural model in capturing the relationships outlined in the study's theoretical framework.

Table 4 provides a comprehensive view of the outcomes derived from the direct path analysis, offering nuanced insights into the hypothesized relationships within the structural model. Firstly, the positive path coefficient ( $\beta=0.268$ ) and a significant T-value of 4.592 indicate a substantial and positive association between microfinance engagement and favorable business attitudes. This result suggests that businesses actively participating in microfinance initiatives tend to cultivate more positive attitudes. The positive influence may stem from the enhanced financial resources, training, and support microfinance provides, fostering a favorable outlook. The moderate VIF of 4.542, below the threshold of 5, reinforces the reliability of this finding. On the other hand, with a positive path coefficient ( $\beta=0.217$ ) and a significant T-value of 3.379, the analysis indicates a positive relationship between perceived loan costs and business attitudes. Favorable perceptions of loan costs are likely to contribute positively to overall business attitudes. This connection underscores the importance of transparent and affordable financial services in shaping entrepreneurs' attitudes, instilling confidence and optimism in their business endeavors. The VIF of 4.187, below the 5 thresholds, assures the robustness of this relationship [49, 51, 58].

**Table 4.** Direct path analysis.

Relationships	$\beta$	T-value	2.5% CI	97.5% CI	VIF	Decisions
H1: Microfinance → Business Attitude	0.268***	4.592	0.156	0.385	4.542	Yes
H2: Cost of Loan → Business Attitude	0.217***	3.379	0.091	0.342	4.187	Yes
H3: Individual Fund-Support → Business Attitude	-0.061**	2.271	-0.115	-0.013	1.159	Yes
H4: Business Attitude → Sustainable Growth	0.715***	28.007	0.665	0.765	1.000	Yes

Note:  $\beta$ =path coefficients, CI=confidence interval, VIF=variance inflation factor.

The negative path coefficient ( $\beta=-0.061$ ) and a significant T-value of 2.271 unveil an inverse relationship between individual fund-support and business attitudes. The negative association suggests that an overreliance on individual fund-support may lead to less positive business attitudes. This unexpected result prompts further exploration into potential challenges or limitations associated with individual fund-support, such as financial constraints or increased business stress. The low VIF of 1.159, below the threshold of 5, ensures the stability of this intriguing finding. Finally, a substantial positive path coefficient ( $\beta=0.715$ ) with an exceptionally high T-value of 28.007 underscores a robust and highly significant positive relationship between positive business attitudes and sustainable growth. This finding highlights the pivotal role of a positive entrepreneurial mindset in driving sustained business growth. Entrepreneurs with optimistic attitudes may exhibit resilience, innovative

thinking, and strategic decision-making, contributing to long-term business success. The VIF of 1.000, comfortably below the 5 thresholds, reinforces the reliability of this critical result.

Now, Table 5 elucidates the findings of the moderation effects analysis, unveiling the nuanced interplay between business satisfaction and the impact of various financial factors on business attitudes. The positive path coefficient ( $\beta=0.137$ ) with a significant T-value of 2.328 indicates a moderation effect between business satisfaction and the relationship between microfinance engagement and business attitudes. The confidence interval (CI) from 0.013 to 0.245 underscores the precision of this moderation effect. This result suggests that the positive influence of microfinance on business attitudes is enhanced when businesses experience high levels of satisfaction. The VIF of 5.695, while slightly above the conventional threshold of 5, remains at an acceptable level, suggesting that multicollinearity is not a major concern [49, 51]. This moderation effect aligns with the idea that a satisfied business owner may derive more substantial benefits from microfinance initiatives, emphasizing the importance of considering satisfaction levels in the evaluation of such programs.

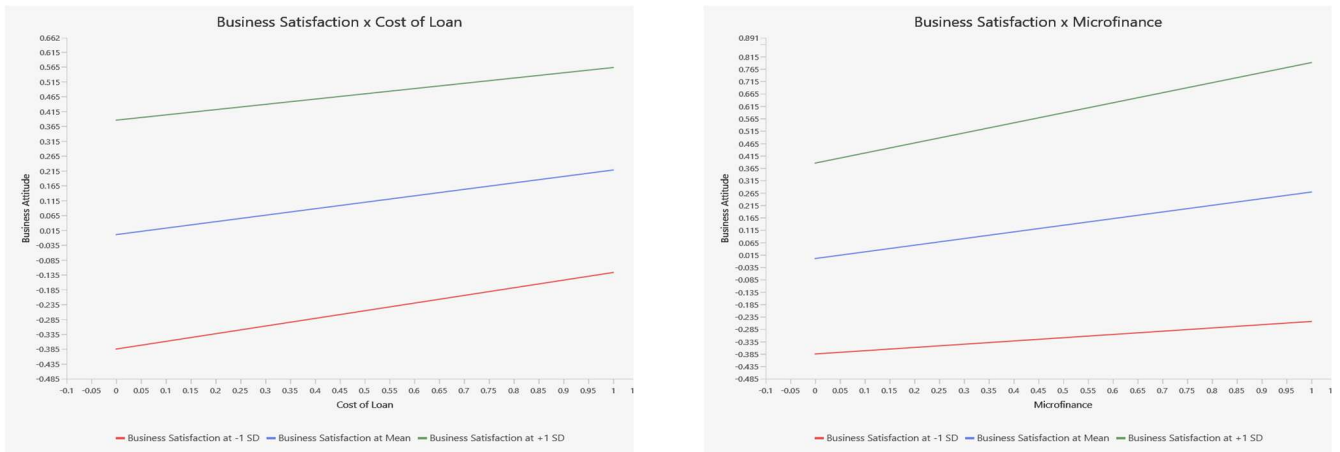
**Table 5.** Moderation effects.

Relationships	$\beta$	T-value	2.5% CI	97.5% CI	VIF	Decisions
H5: Business Satisfaction $\times$ Microfinance $\rightarrow$ Business Attitude	0.137**	2.328	0.013	0.245	5.695	Yes
H6: Business Satisfaction $\times$ Cost of Loan $\rightarrow$ Business Attitude	-0.040	0.823	-0.116	0.079	5.052	No
H7: Business Satisfaction $\times$ Individual Fund-Support $\rightarrow$ Business Attitude	-0.010	0.324	-0.069	0.053	1.107	No

Note:  $\beta$ =path coefficients, CI=confidence interval, VIF=variance inflation factor.

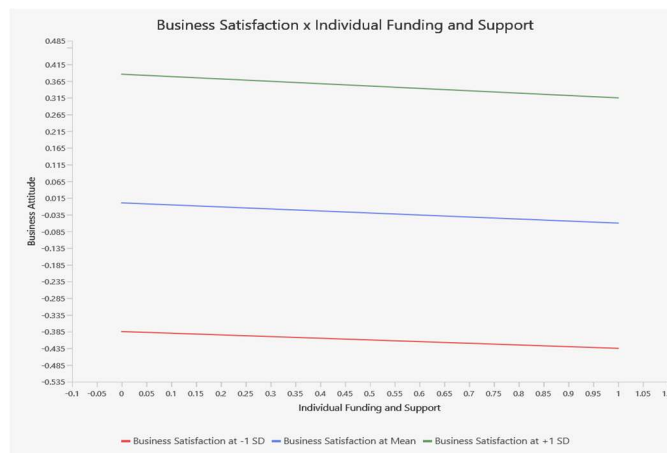
The near-zero paths coefficient ( $\beta=-0.040$ ) with a T-value of 0.823 suggests a lack of significant moderation effect between business satisfaction and the relationship between perceived loan costs and business attitudes. The wide CI from -0.116 to 0.079 further emphasizes the absence of a substantial effect. The VIF of 5.052, although slightly above the threshold, remains within an acceptable range. This result suggests that, in the context of perceived loan costs, business satisfaction may not significantly influence the relationship with business attitudes. The moderation effect here is deemed inconclusive, highlighting the need for further investigation into potential contextual factors that may influence this relationship. Further, the minimal path coefficient ( $\beta=-0.010$ ) with a T-value of 0.324 indicates a negligible moderation effect between business satisfaction and the relationship between individual fund-support and business attitudes. The narrow CI from -0.069 to 0.053 reinforces the absence of a substantial effect. The low VIF of 1.107 remains comfortably below the threshold of 5. This result suggests that business satisfaction does not significantly moderate the relationship between individual fund-support and business attitudes. This lack of moderation effect prompts further exploration into the factors that may influence the impact of individual fund-support on attitudes independently of satisfaction levels.

Figure 3 serves as a visual representation of the moderating effects elucidated in Table 4. The diagram depicts the interactive relationships between business satisfaction, various financial factors, and their combined influence on business attitudes. The presence of this diagram is crucial for conveying the complex dynamics and nuances of how business satisfaction moderates the impact of financial factors on attitudes.



Cost of Loan → Business Attitude → Sustainable Growth

Microfinance → Business Attitude → Sustainable Growth



Individual Funding and Support → Business Attitude → Sustainable Growth

**Figure 3.** Moderating effects diagram.

In the context of moderation, this diagram provides a visual guide to understand the conditional nature of these relationships. Specifically, it illustrates how business satisfaction enhances or attenuates the influence of financial factors on business attitudes. Each path in the diagram represents a distinct moderating effect, and the direction and strength of these paths are informed by the respective path coefficients from the moderation effects analysis. For instance, in line with H5, the diagram would visually represent that the positive relationship between microfinance and business attitudes is strengthened when business satisfaction is high. Conversely, for H6 and H7, where no significant moderation effects were observed, the corresponding paths in the diagram would appear as less pronounced or inconclusive.

The moderation effect observed in H5, where business satisfaction enhances the positive relationship between microfinance engagement and business attitudes, can be practically justified by considering the role of satisfaction as a contextual factor. When entrepreneurs are satisfied with their business, they may experience a heightened sense of confidence, security, and motivation. In the context of microfinance, a satisfied business owner is likely to perceive the financial support provided by microfinance initiatives more positively. This positive perception may, in turn, amplify the impact of microfinance on business attitudes. A satisfied entrepreneur may leverage the financial resources and support offered by microfinance more effectively, leading to an enhanced positive attitude

towards their business prospects. Thus, the presence of this moderation effect aligns with the notion that satisfaction acts as an amplifier, magnifying the beneficial impact of microfinance on business attitudes.

On the other hand, the absence of significant moderation effects in H6 and H7 suggests that business satisfaction does not substantially influence the relationships between perceived loan costs and individual fund-support, respectively, and business attitudes. This lack of moderation can be understood by considering the relatively more direct and transactional nature of these financial factors. In the case of perceived loan costs (H6), the satisfaction of the business owner may have limited bearing on how they perceive the costs associated with obtaining a loan. Loan costs are often more objective and transaction-specific, leaving less room for the subjective influence of satisfaction. Similarly, in the context of individual fund-support (H7), the absence of a moderation effect may indicate that the impact of individual fund-support on business attitudes is less contingent on the overall satisfaction of the business owner. Individual fund-support might be viewed as a more independent and self-driven financial resource, and satisfaction levels may not significantly alter the fundamental relationship between individual fund-support and business attitudes.

Finally, Table 6 outlines the results of the mediation effects analysis, providing insights into the sequential relationships between financial factors, business attitudes, and sustainable growth. The positive path coefficient ( $\beta=0.192$ ) with a significant T-value of 4.485 indicates a mediation effect in the relationship between microfinance engagement and sustainable growth through business attitudes. The confidence interval (CI) from 0.111 to 0.278 underscores the precision of this mediation effect. This finding suggests that the positive impact of microfinance on sustainable growth is partially mediated by fostering positive business attitudes. In practical terms, microfinance not only directly contributes to sustainable growth but also influences this growth by shaping a more positive mindset among entrepreneurs. The mediation effect is supported, emphasizing the importance of considering the psychological pathways through which financial support impacts business outcomes.

**Table 6.** Mediation effects.

Relationships	$\beta$	T-value	2.5% CI	97.5% CI	Decisions
H8: Microfinance → Business Attitude → Sustainable Growth	0.192***	4.485	0.111	0.278	Yes
H9: Cost of Loan → Business Attitude → Sustainable Growth	0.155***	3.306	0.064	0.247	Yes
H10: Individual Fund-Support → Business Attitude → Sustainable Growth	-0.043**	2.267	-0.082	-0.009	Yes

With a positive path coefficient ( $\beta=0.155$ ) and a significant T-value of 3.306, the analysis indicates a mediation effect in the relationship between perceived loan costs and sustainable growth through business attitudes. The narrow CI from 0.064 to 0.247 enhances the precision of this mediation effect. This implies that the positive impact of favorable perceptions of loan costs on sustainable growth is, in part, mediated by fostering positive business attitudes. Entrepreneurs who view loan costs more favorably are likely to develop a more positive attitude, contributing to sustainable growth. This mediation effect emphasizes the interconnected nature of financial perceptions, attitudes, and long-term business success. The negative path coefficient ( $\beta=-0.043$ ) with a significant T-value of 2.267 suggests a mediation effect in the relationship between individual fund-support and sustainable growth through business attitudes. The CI from -0.082 to -0.009 underscores the precision of this

mediation effect. This implies that the negative impact of individual fund-support on sustainable growth is, in part, mediated by fostering less positive business attitudes. The mediation effect suggests that an overreliance on individual fund-support may not only directly hinder sustainable growth but also influence this hindrance by shaping less positive business attitudes. This result underscores the need for a balanced financial approach to support sustainable growth, considering both direct and psychological influences.

#### 4.3. Analysis of fsQCA

In the analysis of this study, fsQCA is employed following PLS-SEM in a strategic three-step process: calibration, necessity analysis, and sufficiency/configuration analysis [63-64]. PLS-SEM, a robust quantitative method, was initially utilized to uncover latent variable scores, providing nuanced insights into the complex relationships among business attitude, sustainable growth, and associated factors [54]. The adoption of fsQCA as a subsequent analytical approach is justified by its unique capacity to unravel complex causal configurations that may not be fully captured by linear relationships. fsQCA allows for an in-depth exploration of conditions and their interplay, offering a complementary perspective to the linear relationships identified through PLS-SEM [56]. This two-step analytical strategy, combining the strengths of both PLS-SEM and fsQCA, enhances the comprehensiveness of the analysis by capturing non-linear, synergistic, and contingent patterns in the data, contributing to a more holistic understanding of the intricate dynamics influencing sustainable business growth.

Calibration is a crucial step in the fsQCA methodology, as it establishes the fuzzy set membership scores for each case based on observed data [55]. In the context of fsQCA, fuzzy set membership scores represent the degree to which a case possesses a certain condition or attribute. The calibration process for this study involves assigning values, such as maximum, mean, and minimum, to represent the boundaries of full membership, partial membership, and full non-membership, respectively [64]. This calibration is essential because it allows for the translation of qualitative information into quantitative fuzzy set scores, enabling a nuanced representation of the degree of presence or absence of conditions in each case. By incorporating these calibrated fuzzy set scores into the analysis, fsQCA accommodates the inherent imprecision and ambiguity often present in social science data, providing a more realistic and flexible approach to capturing complex relationships [53]. Calibration is, therefore, a fundamental step in ensuring the accurate representation of cases within the fsQCA framework and facilitating the exploration of causal configurations in a manner that aligns with the inherent uncertainty in qualitative data.

Table 7 presents that Micro Finance, Cost of Loan, and Business Satisfaction are identified as necessary conditions for a high business attitude, near the consistency threshold of 0.90 [65]. These conditions exhibit robust consistency scores of 0.87, 0.88, and 0.86, respectively, surpassing the established threshold [55, 65]. Additionally, they demonstrate substantial coverage rates of 0.85, 0.86, and 0.87, indicating their prevalence across cases with a high business attitude. The identified conditions serve as critical determinants for cultivating a positive business attitude. Micro Finance, representing financial support, emerges as indispensable, suggesting that entrepreneurs benefit significantly from such assistance. The favorable perception of the Cost of Loan also plays a crucial role, highlighting the importance of affordable financing options. Business Satisfaction further solidifies its role, emphasizing the psychological dimension in shaping positive entrepreneurial

attitudes. Practically, these necessary conditions signal areas for intervention and strategic focus. Policymakers and financial institutions should recognize the pivotal role of microfinance in fostering positive business attitudes, emphasizing accessible financial support. Ensuring transparent and affordable loan costs becomes imperative for institutions seeking to contribute to entrepreneurs' positive outlooks. Moreover, initiatives that enhance overall business satisfaction, encompassing aspects beyond financial factors, are vital for fostering a conducive environment for entrepreneurial success.

**Table 7.** Analysis of Necessary Conditions for high business attitude.

Sets of conditions	Outcome: High Business Attitude	
	Consistency	Coverage
Micro Finance	0.870762	0.848478
~ Micro Finance	0.497557	0.775755
Cost of Loan	0.884603	0.855676
~ Cost of Loan	0.496495	0.783308
Individual Fund-Support	0.759954	0.771082
~ Individual Fund-Support	0.597794	0.876426
Business Satisfaction	0.863301	0.872422
~ Business Satisfaction	0.512226	0.755379
BSMF	0.641485	0.874306
~ BSMF	0.802087	0.858819
BSCL	0.648730	0.878922
~BSCL	0.793503	0.853641
BSIFS	0.713192	0.875969
~BSIFS	0.751565	0.880594

Note: BSMF= Business Satisfaction × Microfinance, BSCL= Business Satisfaction × Cost of Loan, BSIFS= Business Satisfaction × Individual Fund-Support, BSMF, BSCL, and BSIFS are the moderating variables. Highlighted rows indicate the necessary conditions as consistency threshold is greater than 0.85 [55].

Table 8 reveals that Business Attitude, Micro Finance, Cost of Loan, and Business Satisfaction are identified as necessary conditions for achieving high sustainable growth, each surpassing the consistency threshold of 0.85. Business Attitude exhibits a high consistency of 0.89, coupled with substantial coverage (0.90), highlighting its pivotal role in fostering sustained growth. A positive Business Attitude can manifest in strategic decision-making, innovation, and adaptability, providing a solid foundation for long-term success. Similarly, Micro Finance and Cost of Loan, both displaying consistency scores of 0.89, along with good coverage, underscore their necessity in the context of sustainable growth. Accessible financial support and favorable loan perceptions are evidently critical for businesses aiming for enduring success. Furthermore, Business Satisfaction, with a consistency of 0.89 and exceptional coverage (0.91), emerges as a key driver. This highlights the significance of overall satisfaction in the business environment, encompassing factors beyond financial aspects, in fostering high sustainable growth. These identified necessary conditions collectively emphasize the holistic nature of the entrepreneurial ecosystem, where positive attitudes, financial support, and satisfaction play synergistic roles in ensuring sustained and thriving business growth.

Table 9 presents the outcomes of a sufficiency analysis aiming to identify configurations of conditions that are sufficient for cultivating a high business attitude. Employing the Quine-McCluskey algorithm with a frequency cutoff of 1 and a consistency cutoff of 0.862, the analysis delineates six distinct solutions, each representing a unique combination of conditions contributing to a positive business attitude. The solutions identified in Table 9 present nuanced configurations of conditions



deemed sufficient for cultivating a high business attitude. In Solution 1, the joint sufficiency of Micro Finance and Business Satisfaction (BSIFS) signifies that businesses with access to microfinance and operating in a satisfying business environment tend to exhibit positive attitudes. This underscores the importance of facilitating microfinance programs and enhancing overall business satisfaction as key strategies for fostering positive entrepreneurial outlooks.

**Table 8.** Analysis of Necessary Conditions for high sustainable growth.

Sets of conditions	Outcome: High Sustainable Growth	
	Consistency	Coverage
Business Attitude	0.886942	0.896319
~Business Attitude	0.501392	0.758921
Micro Finance	0.887857	0.874281
~ Micro Finance	0.486761	0.766945
Cost of Loan	0.893545	0.873464
~ Cost of Loan	0.489645	0.780668
Individual Fund-Support	0.770804	0.790359
~ Individual Fund-Support	0.592806	0.878302
Business Satisfaction	0.887370	0.906226
~ Business Satisfaction	0.499132	0.743851
BSMF	0.634754	0.874279
~BSMF	0.812009	0.878634
BSCL	0.643326	0.880815
~BSCL	0.801196	0.871030
BSIFS	0.716504	0.889341
~BSIFS	0.748807	0.886638

Note: BSMF= Business Satisfaction × Microfinance, BSCL= Business Satisfaction × Cost of Loan, BSIFS= Business Satisfaction × Individual Fund-Support, BSMF, BSCL, and BSIFS are the moderating variables. Highlighted rows indicate the necessary conditions as consistency threshold is greater than 0.85 [55].

**Table 9.** Sufficient conditions for high business attitude.

Set of conditions	Sufficient configurations for high business attitude					
	1 <sup>st</sup> Solution	2 <sup>nd</sup> Solution	3 <sup>rd</sup> Solution	4 <sup>th</sup> Solution	5 <sup>th</sup> Solution	6 <sup>th</sup> Solution
Micro Finance	●	⊗	●	⊗	●	●
Cost of Loan	⊗	⊗	⊗	●	⊗	●
Individual Fund-Support	⊗	●	○	○	●	●
Business Satisfaction	⊗	⊗	●	●	●	●
BSMF	○	○	⊗	○	⊗	⊗
BSCL	○	○	○	⊗	○	⊗
BSIFS	●	●	○	○	○	●
Raw Coverage	0.676	0.663	0.501	0.511	0.628	0.623
Unique Coverage	0.005	0.003	0.001	0.009	0.001	0.006
Consistency	0.937	0.922	0.971	0.971	0.957	0.965
Solution Coverage	0.776					
Solution Consistency	0.850					

Note: BSMF= Business Satisfaction × Microfinance, BSCL= Business Satisfaction × Cost of Loan, BSIFS= Business Satisfaction × Individual Fund-Support, BSMF, BSCL, and BSIFS are the moderating variables. Algorithm: Quine-McCluskey (Intermediate solution), frequency cutoff: 1, and consistency cutoff: 0.862.

Moving to Solution 2, where Individual Fund-Support, coupled with Business Satisfaction (BSIFS), is identified as sufficient, the implication is clear. Tailored assistance for individual financial needs, along with a satisfying business environment, emerges as a crucial combination for cultivating

a favorable business attitude. This finding suggests that targeted support for individual fund requirements, coupled with efforts to create a positive business environment, can significantly contribute to positive business attitudes. In Solution 3, the independent sufficiency of Micro Finance and Business Satisfaction underscores the individual contributions of financial support and a content business environment to positive entrepreneurial outlooks. This indicates that strategies promoting accessible microfinance options and enhancing overall business satisfaction individually contribute to fostering positive business attitudes.

Solution 4 highlights the joint sufficiency of a positive perception of the Cost of Loan and Business Satisfaction. This finding underscores the synergy between favorable loan conditions and overall business satisfaction, suggesting that financial institutions should focus on ensuring transparent and favorable loan conditions. Concurrent efforts to enhance overall business satisfaction can positively influence the business attitude. In Solution 5, the joint sufficiency of Micro Finance, Individual Fund-Support, and Business Satisfaction emphasizes the importance of integrated interventions. Strategies targeting financial support, tailored assistance, and overall business satisfaction can lead to a holistic improvement in business attitudes. Lastly, Solution 6 provides a comprehensive approach, emphasizing the interactive effects of Micro Finance, the favorable Cost of Loan, Individual Fund-Support, Business Satisfaction, and the moderating variable BSIFS. Policymakers and financial institutions should consider a multi-faceted approach, addressing financial support, loan conditions, targeted assistance, and overall business satisfaction to cultivate positive business attitudes.

**Table 10.** Sufficient conditions for high sustainable growth.

Set of conditions	Sufficient configurations for high business attitude			
	1 <sup>st</sup> Solution	2 <sup>nd</sup> Solution	3 <sup>rd</sup> Solution	4 <sup>th</sup> Solution
Business Attitude	⊗	⊗	●	●
Micro Finance	⊗	●	●	●
Cost of Loan	⊗	⊗	●	●
Individual Fund-Support	●	●	●	⊗
Business Satisfaction	⊗	●	⊗	●
BSMF	⊗	⊗	⊗	●
BSCL	○	○	⊗	●
BSIFS	●	●	●	●
Raw Coverage	0.671	0.636	0.612	0.549
Unique Coverage	0.001	0.001	0.004	0.000
Consistency	0.943	0.980	0.992	0.995
Solution Coverage	0.775			
Solution Consistency	0.859			

Note: BSMF= Business Satisfaction × Microfinance, BSCL= Business Satisfaction × Cost of Loan, BSIFS= Business Satisfaction × Individual Fund-Support, BSMF, BSCL, and BSIFS are the moderating variables. ●, ○, and ⊗ indicate the present, absent, and do not care for the conditions. Algorithm: Quine-McCluskey (Intermediate solution), frequency cutoff: 1, and consistency cutoff: 0.861.

Now, the sufficiency analysis in Table 10 unveils distinct configurations deemed sufficient for fostering high sustainable growth. Solution 1 highlights the sufficiency of Individual Fund-Support and moderation of BSIFS for achieving high sustainable growth. This implies that businesses with tailored financial assistance and a positive business environment are well-positioned for sustained and robust growth. The absence of Micro Finance and Cost of Loan in this configuration suggests that, in certain contexts, these financial elements might not be critical for sustaining growth. In Solution 2, the combination of Micro Finance, Individual Fund-Support, Business Satisfaction, and the moderating

variable BSIFS emerges as a sufficient condition for high sustainable growth. This suggests that a comprehensive approach involving financial support, tailored assistance, and a positive business environment collectively contribute to sustained growth. Notably, this configuration emphasizes the importance of Micro Finance, signaling its role as a crucial financial element.

Solution 3 presents a more intricate configuration, involving Business Attitude, Micro Finance, Cost of Loan, Individual Fund-Support, and BSIFS. This comprehensive set of conditions underscores the interplay of positive attitudes, diverse financial elements, and tailored assistance in fostering sustained growth. Notably, this solution suggests that a holistic approach, encompassing both financial and attitudinal aspects, is necessary for achieving high sustainable growth. Finally, the fourth solution represents a holistic scenario where Business Attitude, Micro Finance, Cost of Loan, Business Satisfaction, and the moderating variables BSMF, BSCL, and BSIFS jointly contribute to high sustainable growth. This complex configuration implies that a combination of positive attitudes, diverse financial factors, and business satisfaction, moderated by multiple variables, is crucial for sustained and resilient business development.

## 5. Discussion and Policy Recommendation

Our study finds that borrowers' business satisfaction moderates the relationship between microfinance and business attitudes (H<sub>5</sub>). This finding is consistent to that of Saki *et al.* [6], Yunxian *et al.* [7], Hassan *et al.* [8], and Kumari and Prakash [9] in entrepreneurship research. We are the first to investigate this variable within the context of microfinance thereby introducing a novel construct to microfinance research. In our case, when borrowers assess their satisfaction such as whether the credit choice was wise, helpful, meaningful and congenial with the relationship between microfinance features and business attitudes, they have a positive feeling. To enhance borrowers' business satisfaction further our study recommends the following policies and strategies: Mobile banking, online platforms, and digital records can help MFIs increase microcredit access and efficiency. MFIs and the government can teach borrowers financial management and credit responsibility. To satisfy customers, MFIs might offer savings accounts, insurance, and remittances. MFIs can extend microfinance resources by working with local organizations, government agencies, and stakeholders. Seasonal repayment schedules and grace periods reduce defaults and improve borrower satisfaction. MFIs can diversify loan portfolios, set reserves, and monitor and evaluate.

The study found that business satisfaction does not moderate the relationship between cost of loan and business attitudes (H<sub>6</sub>). In other words, borrowers' business attitudes, do not have a positive impact on cost of loan, such as interest rate, uncertainties, loan repayment period, and close monitoring, as well as satisfaction. Previously, Agarwal and Pokhriyal [5] considered attitude toward risk as a moderating variable. Our study also examined attitude toward risk as a moderating variable, marking a novel contribution to microfinance research. This is significant because only a few prior studies have explored this relationship within the current research domain. To enhance the loan features our study recommends the following strategies: Integrating technology, automating processes, and optimizing operations can streamline operations and minimize overhead expenses. Form strategic alliances with investors, development organizations, and banks to negotiate reduced financing costs. Cut down on administrative costs and default rates via cost-effective strategies like group lending, peer monitoring, and community-based approaches. To make loans more affordable for microfinance customers, particularly those in disadvantaged or high-risk regions, look into possibilities for

concessional financing, subsidies, or grants from the government. Borrowers should be able to choose repayment periods that work with their income and cash flow. Options like grace periods or customizable repayment plans might be part of this. Microfinance institutions can make a positive impact on the communities they serve by contributing to sustainable development, making their services more cost-effective, and increasing borrower satisfaction.

The result of the study further indicates that individual funding and support positively affect the investors' business attitude (H<sub>3</sub>). The finding is aligned with those of Nguyen *et al.* [15], Ha and Kim [16], and Pinkovetskaia *et al.* [17], who conducted research in various fields other than microfinance business. Hence, the result is a novel addition to the microfinance literature and makes a significant contribution to the field. Thus, our study concludes that microfinance borrowers' savings, land, trees, and animal husbandry, loans from my family, friends, and acquaintances as well as side jobs such as freelancing and manual labor helped them to conduct the business well. Therefore, borrowers should be encouraged to increase their own funding and support so that they can invest the funds for further business expansion. This will ultimately create pressure for MFIs to reduce their rate of interest and become more borrowers-oriented MFIs.

This study further reveals that borrowers' business satisfaction does not moderate the relationship between individual funding and support and business attitude (H<sub>7</sub>). This finding contradicts to that of Al-Shami *et al.* [44]. As far as we are concern, borrowers' business attitudes, do not have a positive impact on individual funding and support and satisfaction, because, poor borrowers choose to borrow from MFIs rather than selling their last resources and starting a business. Because microfinance loans do not require collateral security, marginal borrowers can obtain loans from MFIs while still holding their savings, land, and other assets to protect themselves for future needs. To Encourage microfinance borrowers to take loans instead of using their own funds for business purposes MFIs should introduce financial incentives such as preferential interest rates, rebates, or discounts for borrowers who actively utilize microfinance loans for business purposes and demonstrate positive financial outcomes. Although the result of H<sub>3</sub> suggests that individual funding and support positively affect investors' business attitude, the result of H<sub>7</sub>, shows that business satisfaction does not moderate the relationship between individual funding and support and business attitude. In other words, when microfinance borrowers assess their satisfaction with the relationship between investing their own fund and support and business attitude, they have a negative emotion, however, when borrowers only consider investing their own fund when borrowers assess their satisfaction in terms of wise credit choice, satisfactory credit, helpful credit, congenial credit, and meaningful credit in the relationship between microfinance features such as capital requirement, actual capital, and support services provided by MFIs and business attitudes, such as business status quo, happiness at work, enthusiasm to work, and pride in business, they have a positive feeling., they have a positive business attitude.

This study hypothesized that microfinance is positively associated with business attitude (H<sub>1</sub>) and found it to be significant. This result supports the studies carried out by Mahmood [10], Indarti [11], Akula and Singh [12], Karlan and Zinman [32], and Banerjee *et al.* [4]. Therefore, our study infers that the features of microfinance such as capital provided, capital required, accessibility, and support services facilitated by MFIs create a positive attitude in microfinance borrowers' minds. MFIs provide capital in the form of microloans to borrowers, enabling them to start or expand their businesses, invest in education, or meet other financial needs. When borrowers receive the necessary capital, they

are empowered to pursue their goals and improve their economic situation. In addition, by bringing financial services directly to the doorstep of borrowers, MFIs enhance accessibility and convenience. This accessibility can develop confidence and positivity among borrowers, knowing that financial assistance is within reach. This fosters a sense of gratitude and positivity towards the MFI. In order to enhance borrowers' business attitude further, MFI can motivate borrowers to increase entrepreneurial aspirations, foster a supportive environment, and equip them with the knowledge and resources needed for success.

This study again revealed that cost of loan has an effect on borrowers' business attitude (H<sub>2</sub>). This finding contradicts with the study conducted by Prince *et al.*, [33], Basharat *et al.* [13] and Shabrina *et al.* [14]. The reason our findings differ from previous studies is that prior studies solely examined high interest rates, ignoring the complexity of obtaining low-cost bank rates and collateral security that microfinance does not impose on marginalized individuals. Hence in recent times, the cost of a loan has a positive effect on borrowers' business attitudes. Therefore, MFI can enhance their business performance by promoting loan affordability, supporting return on investment, managing risk, fostering long-term relationships, building positive reputations, and reducing financial stress. To empower borrowers and facilitate their business attitudes, MFIs can establish fair and reasonable loan pricing, provide flexible repayment times, and mitigate uncertainties to avail loan on time.

Our study finally confirms that borrowers' business attitude is significantly associated with sustainable business growth (H<sub>4</sub>). This study further confirms that business attitude mediates the relationship between microfinance (H<sub>8</sub>), cost of loan (H<sub>9</sub>) and individual funding and support (H<sub>10</sub>) and sustainable business growth. The result is consistent with those of Alshebami [18], Braidford *et al.* [19], Purba and Tan [20]; Prince *et al.* [21]; and Amin *et al.* [34]. These results also indicate new findings as scant studies have suggested the mediating relationship of business attitude in microfinance research. A positive business attitude such as business ambition, work progress willingness, business status quo, pride in business, happiness in work, enthusiasm in work, and desire to earn more at work creates a supportive and empowering work environment that fosters employee engagement and retention. When employees feel valued, motivated, and inspired by their leaders, they are more likely to contribute their best efforts to the organization's success. This leads to higher productivity, lower turnover rates, and a stronger team dynamic, all of which are essential for sustainable growth. Enhancing borrowers' positive business attitude can be achieved through a combination of education, support, and motivation. Here are several strategies to foster a positive business attitude among borrowers: 1. Personal development coaching: Provide guidance, support, and accountability to help borrowers achieve business goals. 2. Peer support networks: Facilitate networks where borrowers can share experiences, best practices, and encouragement. 3. Goal setting and progress tracking: Encourage SMART goals and help borrowers develop action plans and track progress. 4. Positive reinforcement: Recognize and celebrate borrowers' efforts and accomplishments to inspire others. 5. Resilience-building strategies: Teach strategies for coping with setbacks and challenges, and encourage viewing failures as learning opportunities. 6. Feedback and supportive environment: Create a space where borrowers can seek feedback, ask for help, and receive constructive guidance.

## 6. Conclusions, Limitations and Future Research

This study investigated the intricate dynamics of microfinance and its impact on sustainable business growth using the Stimulus-Organism-Response (SOR) theory. Through the analysis of data

collected from 845 participants in the Khulan division, several key insights emerged. Firstly, the study highlighted the significant influence of microfinance, along with the cost of loans and individual funding and support, on borrowers' business attitudes. These attitudes, in turn, were found to positively correlate with sustainable business growth. This underscores the crucial role of not only accessing microfinance but also the terms and support mechanisms surrounding it in shaping entrepreneurs' perceptions and behaviors. Moreover, the research revealed that while microbusiness and business attitudes were strongly linked, other aspects such as business satisfaction did not significantly moderate the relationships between certain factors like the cost of loans and individual funding/support with business satisfaction. This nuanced understanding suggests that while certain elements directly impact attitudes, others may have more complex relationships that require further exploration.

This study contributes two novel concepts such as individual funding and support and business satisfaction to the microfinance discourse, expanding the theoretical framework and providing valuable insights for future research. In addition, this study tested the moderating role of business satisfaction, which limited studies explored in the current research field. Hence, from a methodological point of view, the current study has added to the literature related to microfinance sustainable business growth, providing a robust contribution to the microfinance research arena. Furthermore, this study has applied the SOR theory that limited studies have tested in microfinance research. By introducing the theory into microfinance research, this study offers a fresh perspective and extends the scope of inquiry, paving the way for more comprehensive analyses in the field.

The findings have several implications to policymakers, MFIs and concerned authorities. First, it helps identify the specific needs and challenges faced by borrowers, enabling microfinance institutions (MFIs) to tailor their services more effectively. Second, it provides insights into the behaviors and attitudes that contribute to or hinder business success, allowing for the development of targeted interventions that promote positive practices. Finally, this knowledge supports the creation of comprehensive support systems that foster resilience, financial literacy, and entrepreneurial skills, ultimately leading to more sustainable business growth and economic development in underserved communities.

This study is conducted on the microfinance borrowers of the Khulna division only. Hence future research should include other divisions of Bangladesh for generalization.

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