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Social Performance Determinants of Global Islamic and Conventional Microfinance Institutions and Human Happiness

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<p>Amat-ul Mateen Noor PhD Scholar, Department of Banking and Finance, University of Management and Technology, Lahore, Pakistan. Email: amateen067@gmail.com</p> <p>Dr. Mohammad Ayaz Associate Professor, Department of Banking and Finance, University of Management and Technology, Lahore, Pakistan. Email: mohammad.ayaz@umt.edu.pk</p> <p>Dr. Muhammad Ather Ashraf Chairperson Department of Banking and Finance, UMT. ather.ashraf@umt.edu.pk</p>	<p>Abstract</p> <p>The achievement of human happiness is an emerging issue in 21st century where mental health is gaining as much importance as physical health and financial issues. Therefore, the purpose of this research was to explore and compare the role that the social performance of global Islamic and conventional microfinance institutions play in achieving human happiness by using non-traditional indexes. Further, the study also checked the moderating role of institution size in this relationship. Results indicate that the social performance of both Islamic and conventional microfinance institutions is important to achieving human happiness. Institution size as a moderator has a negative impact on social performance of conventional microfinance institutions in achieving sustainable development due to the possibility of commercialization. In terms of policy recommendations, the results of this study present several policy directions for both Islamic and conventional institutions managers for both developed and developing countries. Both Islamic and conventional MFIs managers should focus on social performance especially outreach to the poor women to achieve human happiness. The managers should realize that in the case of increasing the institution's size, social performance can be improved. This study also gives directions to the government, central bodies, and other regulatory authorities to develop policies for improving the social performance of both Islamic and conventional microfinance institutions to achieve human happiness. Central bodies must switch from using outdated metrics used in MF industry related to governance, auditing, and client protection to gauge development and progress to metrics that focus on happiness and well-being. This study has taken multiple indicators of social performance that are extensively discussed in MIX reports. For future studies; financial performance indicators can be included in the study.</p> <p>JEL Classification: C1, D6, D9.</p>
<p>Keywords:</p>	<p>Social Performance, Islamic Microfinance, Microfinance, Human Happiness, Human Happiness Index</p>



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1. Introduction

1.1 Happiness and Its Importance

It can be difficult to define happiness in a formal sense. People frequently use the term to characterize a variety of happy feelings, such as laughter, pride, happiness, and joy. However, researchers must first define happiness in order to comprehend its sources and effects. Happiness is often used interchangeably with "subjective well-being" for most people. This is determined by asking people to rate their level of life satisfaction (evaluative), their tendency towards positive and negative emotions, and their sense of meaning and purpose. According to positive psychology researcher Sonja Lyubomirsky, happiness is defined as "the experience of joy, contentment, or positive well-being, combined with a sense that one's life is good, meaningful, and worthwhile" (Lyubomirsky, 2008).

Happiness is not a soft and lofty aim, but rather a technique for achieving long-term development. Human happiness is important to identify solutions that benefit people and the environment, hasten sustainable development, and improve human well-being. In fact, this paradigm is adopted by certain nations. For instance, the "Well-being Budget" of New Zealand places a higher priority on expenditure in order to improve social happiness. A happiness index metric that redefines value is used in the Well-Being Budget. In an effort to rank among the world's five happiest nations, the United Arab Emirates introduced the National Programmed for Happiness and Wellbeing in 2016. Bhutan uses the Gross National satisfaction scale to gauge its citizens' level of satisfaction. The Fourth King of Bhutan first used the term "gross national happiness" in 1972 when he said, "Gross national happiness is more important than GDP" (World Happiness Report, 2021). Human happiness link with economic activities is called happiness economics. The official academic study of the connection between personal contentment and financial matters like job and wealth is called happiness economics. Research on human happiness and human economics is needed to improve the scale of happiness indexes by reducing hurdles in social, economic, psychological sustainability both in developed and developing countries.

1.2 Microfinance and Human Happiness

Human happiness covers, social support, freedom to make your own choices, the generosity of the general population, gross domestic product per capita, health life expectancy, perceptions of internal and external corruption levels. Microfinance institutions' financial and social performance claims to play huge role in improving well-being which also includes achieving human happiness and life satisfaction. Therefore, it is important to find out the role of microfinance institutions' performances in achieving human happiness (Bunsit, 2017).

When making critical policy decisions, countries are being urged by a number of intergovernmental organizations (such as the United Nations, the World Health Organization, and the Organization for Economic Co-operation and Development) to consider well-being indicators (such as life satisfaction) in addition to traditional economic indicators. The need to keep assessing the health and well-being results see from policies meant to increase life satisfaction expands along with the number of governments adopting this new strategy, the role of MFIs on human happiness research is needed.

1.3 Human Happiness in Islamic Perspective

Achieving a balance between the material and spiritual parts of life is necessary to attain true happiness and contentment, which is a multifaceted outcome. Illness of the soul is a frequent spiritual sickness that arises when we ignore the spiritual side of life. The remedy is to simply accept the faith that God Almighty has approved for humanity and to have faith in Him. If this spiritual illness is not treated, there will be terrible outcomes. Islamic theology holds that achieving permanent happiness, contentment in this life, peace of mind, tranquillity of heart, and everlasting bliss in the Hereafter is a lifetime process. It is more than just a transient state of happiness and contentment (Zamzami et al., 2023).

1.4 World Human Happiness Index

There are different indexes that calculate the progress of happiness i.e. World Human Happiness Index and Gross National Happiness Index. Based on respondents' assessments of their own lives, the World Happiness Report is a publication that includes articles and rankings of national happiness. It also correlates these rankings with a number of different (quality of) life characteristics. Finland has been named the happiest nation in the world six times running as of March 2023. The Gallup, Inc. polling business conducted a global happiness assessment study, which served as the basis for the rankings of country happiness. Respondents drawn from nationally representative samples are asked to visualize a ladder where a 10 represents their ideal life and a 0 represents their worst life. On a scale of 0 to 10, they are then asked to rate their own lives as they are right now. The study links the outcomes of the life assessment to a number of different aspects of life (Worldhappiness, 2023). Therefore, this study has used World Human Happiness Index as dependent variable to examine the role of MFIs on human happiness.



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1.5 Social Performance Determinants of Islamic and Conventional MFIs

The provision of financial services to low-income individuals and groups is referred to as "microfinance". Credit unions, government banks, savings cooperatives, nonbanking financial institutions, credit unions, and rural banks are examples of microfinance institutions

Islamic Microfinance Islamic microfinance is the result of the merger of two quickly expanding sectors: microfinance and Islamic finance. According to Shariah principles, Islamic microfinance offers low-income individuals financial services. The financing methods are the primary distinction between Islamic and Conventional Microfinance. Social Performance includes accessibility of providing financial services to low income people. Social performance determinants are segmented into number of active borrowers, percentage of female borrowers in active borrowers, gross loan portfolio, social goals, governance and HR, products and services, client protection, environmental policies and initiative, auditing and rating (MIX Market | Data Catalog, 2022).

1.6 Objective, Rationale and Novelty of the Study

There are three categories of human subjective well-being and happiness which are hedonic, evaluative, and eudaimonic well-being. Hedonic well-being is related to temporary happy and sad feelings; evaluative well-being is judgment about living standard, while eudaimonic is related to meaning and purpose of life (Nikolova & Graham, 2021). This study will cover hedonic and eudaimonic happiness.

The main objective of the study is to examine and compare the impact of social performance of Islamic and conventional microfinance institutions in achieving human happiness. Further this study has also assessed the moderating effect of firm size on the role of social performance of Islamic and conventional microfinance institutions in achieving human happiness. The novelty in this study is both conventional and Islamic microfinance institutions are linked with human happiness index and compared their roles.

2. Theoretical Background and Literature Review

2.1 Theoretical Underpinning

The theory of utilitarian, welfare hedonism and Maqasid Al Shariah are linked with this study. According to the utilitarian theory of morality, one should support activities that make people happy and oppose those that make them unhappy. Utilitarianism is "the greatest amount of good for the greatest number of people." Similarly according to the philosophical theory of welfare hedonism, an individual's welfare is determined only by the amount of pleasure and absence of pain they feel. Both conventional and Islamic microfinance institution have linked utilitarian and welfare hedonism theories with human happiness as these institutions utilize financial services for the benefit of the public which is deprived of basic financial tools in order to remove poor people pain i.e. health issues, educational issues, food, water, shelter, inequality, injustice which lead towards psychological issues. While Maqasid Al Shariah means fulfilling the objectives of Shariah. Shariah is an Arabic word that means "a path to water," or alternatively, "a path to be followed." The legal system known as Shariah is based on the precepts of the Prophet Muhammad, also known as the Sunah, and the Quran. One element of Maqasid Al Shariah that is related to Islamic microfinance is public interest (Al Maslahah). Al Maslahah is further divided into three levels which are Maslahah Dharuriyah, Maslahah Hajjiyyah, and Mashlahah Tahsiniyah. First one is basic needs fulfillment, second one is related to making lives easy and third one is living luxury lives (Rohman, 2019). And according to the Quran and Sunah, these levels of human satisfaction should be in the direction of Shariah. Islamic microfinance has linked Maslahah with human happiness as Islamic microfinance institutions main objective is to help out needy poor people to improve their standard of living for life satisfaction.

2.2 Literature on HHI and Social Performance

Microfinance institutions often assert that their influence extends beyond financial gain, as rescuing marginalized and impoverished borrowers from isolation has a substantial positive impact on their dignity, self-worth, social acceptance, and ultimately, their quality of life. Through an evaluation of whether access to microfinance loans has a major impact on life happiness beyond its indirect impact through changes in income, this research seeks to indirectly corroborate this assertion. The empirical results on a sample of low-income borrowers in Buenos Aires suburbs demonstrate that the number of loan cycles has a significant and favorable impact on life satisfaction after adjusting for survivorship bias (Becchetti and Conzo, 2010).

This study looks into whether or not West Bengali villagers' access to microloans and jobs under the National Rural Employment Guarantee Scheme (NREGS) significantly affects their level of pleasure and life satisfaction, two key indicators of their well-being. In this case, the micro lending system is examined under separate loan contracts for individual and joint liability. This study demonstrates that increased microfinance programme participation, microcredit size, and the number of man-days gained through employment under the NREGS increase rural residents' contentment. Furthermore, research shows that participants in the Self-Help Group under the SGSY scheme report higher levels of happiness than participants in the VSSU microfinance system, which operates on the basis of individual liability loan contracts. This is due to the fact that



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the majority of SGSY scheme members are women, whereas VSSU members are men. Additionally, participants of the SGSY scheme Self-Help Group have gained a great deal of empowerment through joining the microfinance programme and creating Self-Help Group (Kundu, 2010).

The elimination of sickness, crime, poverty, and conflict is the main area of concern for the majority of social, political, health, and policy studies. Is measuring and creating happiness an undeserved luxury in a world where there is still so much pain left? Despite the fact that there are still many different kinds of evil in the world, there is a growing body of data to support the idea that happiness offers a greater range of potential solutions for constructing a better society, such as more potent remedies for poverty, disease, and conflict. Some people believe that happiness research has a "giggle factor" and is too trivial for meaningful investigation. It took long time for measuring and maintaining good states of mind can offer new pathways to longer and better lives outside traditional medical care (Helliwell & Wang 2012).

The underprivileged and oppressed have benefited greatly from microfinance services. It has demonstrated its beneficial effects on the poor's standard of living, which is one of the main determinants of the Gross National Happiness (GNH) Index. This study looks at how microfinance affects the living conditions of the impoverished in order to determine its true effect on the acceleration of the GNH Index. Additionally, the study looks into how fighting weapon microfinance helps the impoverished build their micro capabilities in order to achieve pleasure on an individual basis (Sharma, 2014).

Sameer et al., (2021) analyzed the relationship between human happiness and sustainability by using data of 152 countries. Sustainability measures responsible consumption which is the extension of UN sustainable development goals. The findings highlight the complementarity between a happy and a good life and help to clarify the roles that hedonism and happiness play in sustainability. Happiness has been linked to increased consumption, but it can also result in more conscientious behaviour and a greater commitment to sustainability principles. Happier countries therefore seem to be more responsible for society and the environment, even though they may consume more. The findings cast doubt on the conventional wisdom that happiness and sustainability are mutually exclusive. These results highlight a number of possible social and political ramifications, one of which is the significance of happiness in relation to responsible behaviour.

According to the Microcredit Summit, microfinance has reached over 175 million disadvantaged people globally, providing under banked communities with access to financial tools. Microfinance offers consumers the chance to better their financial situation through this access to financing, but its effects frequently go beyond a client's chequebook. The impact of financial accessibility on mental health metrics, such as life satisfaction, stress, sadness, and optimism, is examined in this study. The utilization of different financial products by households, including savings accounts, insurance, and loans, as well as the ways in which these products are provided—for example, individual vs. collective liability lending—are indicators of financial access. Between 2002 and 2009, information was gathered in the destitute Udaipur district of Rajasthan, India. Both individual and household data are included in the set. The panel data set is made up of surveys that were given to households and individuals in two different waves. The results, which were obtained using fixed-effects OLS regressions, demonstrate that stress and life satisfaction are negatively correlated when a person has an outstanding debt. Revolving credit is the sole indicator of financial accessibility that has an effect on mental health. Financial availability does not seem to have an impact on mental health markers of optimism and depressive symptoms. The findings suggest that the emotional well-being and status of microfinance clients are not significantly impacted by financial access (Prince, 2014). Generally speaking, microfinance and women's economic empowerment are related. The conclusions drawn from research on the empowerment concept differ widely. With an emphasis on women specifically, this study examines the connection between different types of rural funding and gendered social exchanges. Women who work in rural finance typically benefit emotionally from it, even though there are hazards involved. In Pakistan, women are heavily involved in all significant life events, including marriage, childbirth, and death. They receive cash through microfinance and rotating savings and credit associations in order to address the needs in these circumstances. This paper aims to investigate, using the prism of feminist perspectives, how rural funding affects women's empowerment. In Pakistan, women participate actively in all significant life events, including marriage, childbirth, and death. They receive cash through microfinance and rotating savings and credit associations in order to address the needs in these circumstances. This paper aims to investigate, using the prism of feminist perspectives, how rural funding affects women's empowerment. The study design utilized in this study was descriptive ethnography, and the data was obtained through interviews with the fifty borrowers in the Nara Mughlan village located in District Chakwal. The money was only employed by a small number of women who managed small-scale companies such as sewing and stitching, grocery stores, and the care of poultry and livestock. But, in the event of rotating, they obtain a variety of psychological and emotional benefits by ceding their turn to other women (Ahmed and Malik, 2023).

Microfinance Institutions (MFIs) are companies that offer low-income individuals and communities access to financial services and products, such as small loans, savings accounts, and insurance, that they frequently do not have access to through traditional banking. Robust social connections and networks enable MFIs to connect with and support a greater number of potential clients. In the context of MFIs, mental resources are particularly crucial for employees who manage the institution's operations and interact with



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clients. One of the newest development tactics is thought to be the impact of social and mental resources. Social intermediation is seen in MFIs as one of the crucial components in the process of substituting mental assets. This study examines the relationship between social and mental resources and MFI efficacy using empirical data and it makes an effort to measure the impact of MFIs on women's social empowerment. The study's primary data came from a random sampling method that was used to choose 128 women from Self Help Groups (SHGs) that a major Indian production company established as part of its corporate social responsibility programme in Karnataka. Mental assets are only impacted by outstanding debt amounts. There is a significant positive relationship between MFI effectiveness and mental and social resources. Using a Likert scale covering 15 criteria relating to capacity building, active and collective involvement in social and mental life, and knowledge growing to bring about desired alterations, SHG members' perceptions of the changes the MFIs have created in their lives are assessed. Additionally, study demonstrates the little impact that financial access has on microfinance customers' financial situation and mental well-being. The report concludes that the MFIs of the organisation have produced mental and social resources that enable SHG members. The study finds that social resource formation is not a spontaneous process; rather, businesses must actively foster it by implementing a number of rules, such as those pertaining to capacity expansion, decision-making skills development, etc. (Jain and Bhowmik, 2023). There are some other studies which find negative impact of microfinance on human happiness. This study by Ashta et al., (2011) provides a preliminary investigation into the relationship between microfinance and suicides at a time when discussions of Andhra Pradesh's microfinance borrowers' suicides are prevalent. Does MF make suicides go up or down? Methodological restrictions and tentative findings are implied by data limitations. The literature review of research on suicide highlights the significance of psychological issues, divorce, and unemployment, beginning with Emile Durkheim. We look into time series data on suicides in India and find no relationship between microfinance and the overall number of suicides, but a marginally significant positive correlation with male suicide rates and a slightly negative correlation (not significant) with female suicide rates. Cross-sectional data from Indian states reveals a stronger positive link between the overall number of suicides and the amount of SHG loans that are outstanding to banks than there is between the two. The association between the two is only weak. Beyond India, a global country-wise research shows no association between microfinance and suicides by men or women; nevertheless, a (weak) regression analysis of 31 nations suggests that the rise in suicides is caused by the poor's access to microfinance.

2.3 Literature on Moderator and Control Variables

Advocates of gathering and utilizing subjective wellbeing data, frequently point out that these kinds of data are necessary to counterbalance the focus that is currently almost entirely directed towards economic activity indicators, like the GDP, as benchmarks for measuring the advancement or development of a country (Hall and Helliwell, 2017). Inflation and unemployment both reduce well-being. The misery index, which is the total of the rates of both inflation and unemployment, was used by macroeconomist Arthur Okun to describe the detrimental impacts of both. This work estimates happiness equations using a large European data set spanning the years 1975–2013. The measure of an individual's subjective life satisfaction is regressed against the rate of inflation and unemployment, while accounting for fixed effects related to year, country, and personal characteristics. Conventionally speaking, researcher found that well-being is lowered by both increased unemployment and higher inflation (Blanchflower et al., 2014).

DiMaria et al., (2020) use a matched dataset from surveys and official statistics to examine the relationship between overall productivity and subjective well-being. Life satisfaction and total factor productivity are the metrics used to quantify productivity and well-being, respectively. Using a production framework and non-parametric frontier methodologies, the analysis reveals that in a sample of 20 European countries, life happiness leads to notable increases in productivity. These findings support the hypothesis that enhancing subjective well-being is not only desirable in and of itself but also positively correlated with increased productivity and better economic performance in nations. They also corroborate the evidence of a positive association between the variables of interest found at the individual and firm level.

In the paper by Degutis et al., (2010) relation between GDP and subjective well-being, expressed as personal life satisfaction is analyzed. On the basis of the European Union data from 2000 to 2009, and the Easterlin's paradox, this claims that life satisfaction stays flat in face of the increasing wealth of nations, is tested. The test is carried out using aggregated country level data on life satisfaction from a Standard Eurobarometer survey and GDP per capita data. Both the cross-country correlation and the within-country trends' regression analyses show that the GDP level is positively related to the level of life satisfaction. Although the relation is particularly strongly expressed in Eastern European countries, it also stays positive in many more prosperous EU countries.

People desire to live in prosperous and happy states, but happiness is crucial for society's well-being as well as for the wellbeing of individual people. It is vital to take into account factors other than money in order to maximize pleasure. These factors include having the correct definition of happiness at the individual, family, societal, and environmental (nature) levels. In order to study the causal relationships between the variables under study, this paper highlights the independent, dependent, control, and moderating variables. It also consolidates the findings of the literature into major themes and sub-themes, describes the mechanisms based on empirical papers, suggests an

agenda for future research, and informs policymakers about decisions that affect the level of human happiness through laws and regulations. According to findings, the conception of happiness should be given priority when determining an individual's or a group's degree of happiness. In addition, the study suggests that governments create the frameworks necessary for people to express their level of happiness without being influenced by political pressure to provide answers that will strategically yield high macroeconomic happiness levels (Jain et al., 2019).

The effect of asset size on outreach and financial performance is the main topic of this study by Kendo and Tchakounte, 2022. More precisely, researchers ascertain if microfinance institutions with poor performance are more affected by an increase in asset size than are those with strong performance. They used a panel quantile technique with non-additive fixed effects to accomplish this, which enables us to divide our microfinance sample into smaller groups based on comparable performance levels. According to the findings, microfinance institutions with low or poor profitability levels are more affected by a rise in asset size than those with excellent profitability levels. In terms of outreach, they discovered that while an increase in asset size lowers the proportion of female borrowers in the client portfolio, it has a beneficial effect on the average loan and the number of active borrowers. For MFIs that target women less, an increase in asset size lowers the share of female borrowers more. On the other hand, a rise in asset size lowers the percentage of female borrowers less for MFIs that already have a high proportion of female borrowers. Stated differently, a larger asset size has the stronger effect of driving away female borrowers from the client portfolio, especially for MFIs that target a smaller proportion of female borrowers.

The literature cited above indicates that we should find out the role of social performance in achieving human happiness for both IMFIs and CMFIs by using multiple determinants. Further, the study also checked the moderating role of firm size on this relationship.

Based on the above problem, following hypotheses are formulated below.

Hypothesis-1 (H_{A1}): There is significant impact of social performance of Islamic microfinance institutions in achieving human happiness

Hypothesis-2 (H_{A2}): There is significant impact of social performance of conventional microfinance institutions in achieving human happiness

Hypothesis-3 (H_{A3}): Moderating effect of firm size significantly impact on the social performance of Islamic microfinance Institutions in achieving human happiness

Hypothesis-4 (H_{A4}): Moderating effect of firm size significantly impact on the social performance of conventional microfinance Institutions in achieving human happiness

2.4 Conceptual Framework

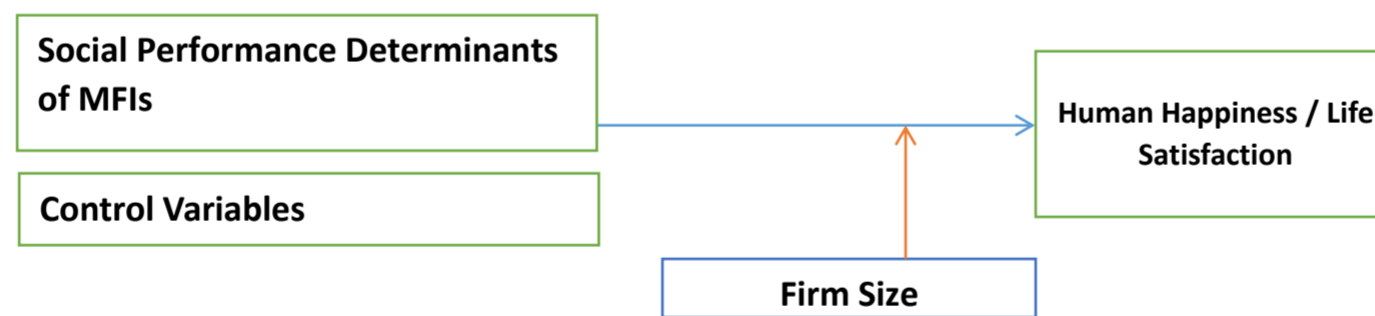


Figure 1

3. Methodology

3.1 Data Sources and Estimation Techniques

This study used unbalanced data of 100 global microfinance institutions (including 80 CMFIs and 20 IMFIs) for the period 2013-17 by applying fixed effect model. As this study has covered panel data, therefore most suitable technique for panel data is panel regression containing fixed and random effect models specifically when panel data is unbalanced (Semykina & Wooldridge, 2010). Similar model has been used by Ahmad et al. (2020).

Human Happiness Index (HII) represented the dependent variable for human happiness. Social performance was measured through Number of Active Borrowers (NABO), %age of Female Borrowers (PFEB), Gross Loan Portfolio (GLPO), Social Goals (SG), Governance and HR (HR), Products and Services (PS), Environmental Policies and Initiative (EPI), Clients Protection (CP), and Audit and Rating (AR) as independent variables. Gross domestic product (GDP), consumer price index (CPI) and regulatory quality (RQ) were used as control variables. World Bank Microfinance Information Exchange and annual reports databases are used for social performance data collection. Control variables data is taken from World Bank database, regulatory quality data is taken from world governance indicator database. Social progress index data is collected from social progress imperative reports.

Table 1: *Description of the Variables*

Independent Variables				
Variable	Proxy	Abbreviation	Formula	Source of Data
Social Performamnce	Number of Active Borrowers	NABO	The numbers of individuals who currently have an outstanding loan balance with the Micro financial institution	World Bank MIX Report
	%age of Female Borrowers	PFEB	Number of active female borrowers / Number of Active Borrowers	
	Gross Loan Portfolio	GLPO	It includes all unsettled and unpaid amount from the clients loans	
	Social Goals	SG	Number of social goals targeted by microfinance institution	
	Governance and HR	GHR	Average Score of Governance and Human Resource	
	Products and Services	PS	Average Score of Products and Services	
	Clients Protection	CP	Average Score of Client Protection Clauses	
	Environmenmental Policies and Initiative	EPI	Average Score of Enivronmental Policies and Initiative	
	Audit and Rating	AR	Average Score of Audit and Rating	
Dependent Variable				
Human Happiness	Human HappinessIndex	HHI	Populated average score of healthy life and well-being	World Happiness Report-WER
Moderator				
Firm Size	Log of Assets	F.Sz.	The firm size is defined as the natural logarithm of total assets at the end of the specified period	MIX Report
Control Variable				
GDP	Gross Domestic Product Per Capita	GDP	Monetary value of good bought by final user in a country in a specific time period	World Bank Database
Inflation	Consumer Price Index	CPI	Change of price of products and services in a specific time period	
Institutional Quality	Regulatory Quality	RQ	Score of quality of regulations by a government for private sector	World Governance Indicator Database

3.2 Empricial Equations

$$HHI_{it} = \alpha_0 + \beta_1 SP_{it} + \beta_2 CVS_{it} + \beta_3 Inst. TYP_{it} + \epsilon_{it} \quad (1)$$

In Eq1, HHI_{it} indicates human happiness index as dependent variable while “it” indicates institutions and timeperiod for panel data. SP_{it} indicates social performance variables including Number of Active Borrowers (NABO), % age of Female Borrowers (PFEB), Gross Loan Portfolio (GLPO), Social Goals (SG), Governance and HR (HR), Products and Services (PS),

Environmental Policies and Initiative (EPI), Clients Protection (CP), and Audit and Rating (AR). X_{it} indicates the control variables including gross domestic product per capita (GDP per capita), consumer price index (CPI), and regulatory quality (RQ). $Inst. TYP_{it}$ as dummy variable where “0” is taken for Islamic microfinance institutions and “1” is taken for conventional microfinance institutions.

$$HHI_{it} = \alpha_0 + \beta_1 SP_{it} + \beta_2 F. Sz_{it} + \beta_3 F. Sz_{it} * SP_{it} + \beta_4 X_{it} + \beta_5 Inst. TYP_{it} + \epsilon_{it} \quad (2)$$

In Eq2 HHI_{it} indicates human happiness index as dependent variable. SP_{it} indicates social performance variables including Number of Active Borrowers (NABO), %age of Female Borrowers (PFEB), Gross Loan Portfolio (GLPO), Social Goals (SG), Governance and HR (HR), Products and Services (PS), Environmental Policies and Initiative (EPI), Clients Protection (CP), and Audit and Rating (AR). $F.Sz_{it}$ is indicating the moderating variable. $F.Sz_{it} * SP_{it}$ indicates logasset multiplication with social performance variables Return on Asset (ROA) and Portfolio Yield (PFY). X_{it} indicates the control variables gross domestic product per capita (GDP per capita), consumer price index (CPI), and regulatory quality (RQ). $Inst. TYP_{it}$ as dummy variable where “0” is taken for Islamic microfinance institutions and “1” is taken for conventional microfinance institutions.

As the model specification is linear, stated variables are converted into natural logarithm to generate robust and comparative estimates (Cameron & Trivedi, 2010; Bibi et al., 2018). Now the equations can be written as:

$$lHHI_{it} = \alpha_0 + \beta_1 lSP_{it} + \beta_2 lCVS_{it} + \beta_3 Inst. TYP_{it} + \epsilon_{it} \quad (3)$$

$$lHHI_{it} = \alpha_0 + \beta_1 lSP_{it} + \beta_2 lF.Sz_{it} + \beta_3 lF.Sz_{it} * lSP_{it} + \beta_4 lX_{it} + \beta_5 Inst. TYP_{it} + \epsilon_{it} \quad (4)$$

4. Data Analysis

4.1 Descriptive Evaluation

Table 2 describes statistics of all the variables including number of observations, mean, standard deviation, minimum and maximum value.

Table 2: *Descriptive Statistics Summary*

Variables	HHI	NABO	PFEB	GLPO	SG	GHR	PS	CP	EPI	GDP	CPI	RQ
<i>Islamic microfinance institutions</i>												
Obs	80	80	80	80	80	80	80	80	80	80	80	80
Mean	0.49	13258	2.90	1.25	3.34	9.17	1.61	.66	.30	.24	2.98	1.7
Std. Dev	4.00	3.34	.6121	1.15	.87	.21	.81	.11	.61	.003	-.422	.09
Min	3.59	1.01	.89	6.34	1.01	.059	.33	.56	.24	.26	.34	.50
Max	7.50	5.24	.96	.737	1.4	.124	.78	.75	.35	.85	1.97	.63
<i>Conventional Microfinance Institutions</i>												
Obs	370	370	370	370	370	370	370	370	370	370	370	370
Mean	415	398.8	3.72	2.46	1.39	2.22	1.65	2.9	4.23	.38	.226	.92
Std. Dev	4.00	3.00	1.61	.300	.02	2.98	1.7	0.6	0.51	0.70	.024	1.4
Min	.11	.14	.18	.08	.13	.36	1.19	.07	.25	-1.13	-4.6	.05
Max	9.90	6.8	.40	.9	.17	.50	1.168	.6	.36	.152	.51	.68

Here microfinance institutions HHI middle value $(7.50-3.59)/2 = 1.955$, which is more than mean value of 0.49, which indicates distribution is skewed to the left. The standard deviations of most variables are greater than their mean values, which indicate that the data is homogeneous.

Table 3: *Correlation Matrix for Explanatory Variables*

IMFIs	HHI	NABO	PFEB	GLPO	SG	GHR	PS	CP	EPI	GDP	CPI	RQ
HHI	1.00											
NABO	.60	1.00										
PFEB	.39	.68	1.00									
GLPO	.38	.58	.57	1.00								
SG	.07	.39	.51	.47	1.00							
GHR	.031	.25	.27	.10	.64	1.00						
PS	.29	.60	.39	.44	.48	.30	1.00					
CP	.21	.71	.37	.26	.68	.74	.38	1.00				

EPI	.56	.63	.40	.71	.64	.41	.56	.51	1.00				
GDP	.06	.35	.42	.35	.78	.32	.67	.21	.35	1.00			
CPI	-.67	.04	.28	.60	.20	.48	.09	.15	.10	.71	1.00		
RQ	.17	.49	.49	.58	.28	.21	.17	.28	.66	.65	-.55	1.00	
CMFIs	HII	NABO	PFEB	GLPO	SG	GHR	PS	CP	EPI	GDP	CPI	RQ	
HII	1.00												
NABO	.071	1.00											
PFEB	.035	.32	1.00										
GLPO	.26	.47	.37	1.00									
SG	.67	.32	.32	.65	1.0								
GHR	.75	.38	.63	.35	.49	1.00							
PS	.46	.39	.74	.64	.48	.30	1.00						
CP	.63	.53	.36	.57	.46	.14	.23	1.00					
EPI	.68	.79	.70	.52	.47	.015	.10	.32	1.00				
GDP	.30	.57	.43	.73	.67	.44	.27	.60	.46	1.00			
CPI	.59	.30	.52	.49	.66	.67	.61	.68	.63	.35	1.00		
RQ	.42	.73	.54	.32	.46	.26	.76	.24	.89	.72	.61	1.00	

Correlation matrix indicates degree of correlation between two variables irrespective of independent and dependent roles. Every variable have perfect relationship with itself as 1. The value between two variables close to 1, indicates strong relationship and is considered multicollinearity and close to 0 indicates weak relationship or non existence of multicollinearity. Positive value indicates relationship in same direction while negative value indicates opposite direction relationship. Rule of thumb is coefficient values equal to or more than 0.8 is considered multicollinearity (Kennedy, 2008). Table 2 all variables coefficient are less than 0.8 so there is no multicollinearity between variables.

Table 4: Fixed Effect Model Estimates

DV -HII	IMFIs	CMFIs
/NABO	.8834 (0.011)***	4.4307 (0.017)**
/PFEB	1.03267 (0.01)***	1.8409 (0.003)***
/GLPO	-0.75541 (0.09)*	-1.9109 (0.004)***
/SG	.8502 (0.006)***	6.9109 (0.045)**
/GHR	.4404 (0.045)**	5.1807 (0.035)**
/PS	1.9135 (0.0135)***	.27789 (0.0021)***
/CP	3.2927 (0.067)*	.656945 (0.04)**
/EPI	2.3009	0.37216

	(0.084)*	(0.03)
<i>I</i> GDP	.1898	-.2.2907
	(0.071)*	(0.04)**
<i>I</i> CPI	-0.0054	-.21454
	(0.001)***	(0.028)**
<i>I</i> RQ	6.5010	.098021
	(0.004)***	(0.090)***
Constant	.73480	78.02
	(0.000)	(0.000)
F-Statistics	0.000	0.000
Hausman Test	0.000	0.000

P-values in parentheses *Significant= $p < 0.1$, **Significant= $p < 0.05$, ***Significant= $p < 0.01$

In table 4, model results are indicating the relationship of independent variables of social performance on human happiness index, which is used as dependent variable for human happiness and life satisfaction. Here NABO, PFEB, SG, HR, PS, EPI, CP, AR as independent variables for social performance and control variable as RQ are showing positive significant relationship with HII. This indicates that 1% increase in number of active borrowers of MFIs will increase HHI by 88.34 percent and 1% increase in number of active borrowers of CMFIs will increase HHI by 44.30%. These results are consistent with the Becchetti and Conzo, 2010; Ahmed and Malik, 2023; Jain and Bhowmik, 2023). GLPO, GDP and CPI are showing negative relationship with HII for both types of institutions. There is the possibility of in case of high GDP; MFIs customers move towards traditional banking and due high inflation, their inclusion in banking sector reduces (Degutis et al., 2010; Blanchflower et al., 2014). While for both MFIs and CMFIs, RQ is also showing positive relationship. This indicates regulations help for both types of institutions.

4.2 Diagnostic Tests

The Durbin-Wu-Hausman test is used to determine which fixed or random effect model is the best fit for the given set of data. Since the Hausman test's P-value in this case is less than 0.05, H_0 should be rejected and the fixed effect model should be used (Dougherty, 2011). The more than thirty observations criterion is used when the data have a normal distribution. Since there are more than 30 observations in this instance, as per Plane and Gordon (1982), it is presumed that the data is regularly distributed.

Table 5: *Fixed Effect Regression Estimates with Moderator*

DV-HII	MFIs	CMFIs
<i>I</i> NABO	.7476 (0.001)***	3.7806 (0.043)***
<i>I</i> PFEB	.1281 (0.003)***	7.3458 (0.02)**
<i>I</i> GLPO	-.5097 (0.001)***	-3.9603 (0.043)**
<i>I</i> SG	.4916 (0.003)***	0.44351 (0.043)**
<i>I</i> GHR	.4346 (0.004)***	2.1306 (0.02)**
<i>I</i> PS	.1289 (0.009)***	9.8425 (0.014)**
<i>I</i> CP	.1548	3.0547

	(0.043)**	(0.001)***
<i>I</i> EPI	.6971	5.02165
	(0.009)***	(0.043)**
<i>I</i> F.Sz.	.2442	-5.36068
	(0.05)*	(0.181)
<i>I</i> F.Sz.* <i>I</i> NABO	.82881	.213562
	(0.02)**	(0.014)**
<i>I</i> F.Sz.* <i>I</i> PFEB	.31172	.185106
	(0.001)***	(0.050)*
<i>I</i> F.Sz.* <i>I</i> GLPO	.02748	.188148
	(0.050)*	(0.02)**
<i>I</i> F.Sz.* <i>I</i> SG	.246410	.410271
	(0.014)**	(0.001)***
<i>I</i> F.Sz.* <i>I</i> GHR	.03680	.755287
	(0.050)**	(0.043)***
<i>I</i> F.Sz.* <i>I</i> PS	.94328	.782974
	(0.014)**	(0.02)**
<i>I</i> F.Sz.* <i>I</i> CP	.78306	.410909
	(0.02)**	(0.014)**
<i>I</i> F.Sz.* <i>I</i> EPI	.62543	.755215
	(0.050)**	(0.001)***
<i>I</i> GDP	-.94625	.782581
	(0.043)**	(0.050)*
<i>I</i> CPI	-2.51608	-.43086
	(0.02)**	(0.014)**
<i>I</i> RQ	.391006	-.534526
	(0.050)*	(0.043)**
Constant	.181416	.700823
	(0.00)	(0.000)
F-Statistics	0.000	0.000
Hausman Test	0.000	0.000

P-values in parentheses *Significant= $p < 0.01$, **Significant= $p < 0.05$, ***Significant= $p < 0.1$

Table 5 results indicate that institution size of CMFIs as independent variable has negative relationship with human happiness index. As moderator firm size also has positive impact on of human happness index in achieving human happiness. Increase in firm size indicates the growth of financial institution. These results are consistent with (Hall and Helliwell, 2014). This also indicates that CMIFs are moving towards maturity stage while firm size as independent variable for IMFIs is showing positive relationship with HII. F.Sz.as moderator between NABO, PFEB, SG, HR, PS, EPI, CP, AR and HII is showing positive relationship which is showing opposite results by Kendo and Tchakounte, (2022). This indicates that growth of IMFIs improves the social performance which leads towards the achievement of HH. The results are consistent with utilitarianism theory that both Islamic and conventional microfinance institutions' social performance leads towards achieving human happiness.



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5. Conclusion

This is one of the pioneer studies to explore the role of both Islamic and conventional microfinance institutions for achieving Human Happiness. HH achievement is important for social and economic growth for developing countries. This study linked a Human Happiness index as for HH. The results indicated that NABO, PFEB, GLPO, SG, HR, PS, EPI, CP, AR of Islamic and conventional MFIs have positive relationship with HH. GDP, CPI as control variables have negative relationship with HHI for both institutions. There is the possibility of in case of high GDP, MFIs customers move towards traditional banking and due high inflation, their inclusion in banking sector reduces. While for IMFIs and CMFIs, RQ is also showing positive relationship. This indicates rules and regulation development and implementation is necessary for both IMFIs and CMFIs. Firm size of CMFIs as independent variable has negative relationship with human happiness index. As moderator firm size has positive impact on social performance of IMFIs with HII. Increase in firm size indicates the growth of financial institution. There is the possibility of commercialization in CMFIs in case of increasing the firm size. To gain profit from the re-investment, CMFIs may start serving few customers will large loans and neglect the poorest one due to high cost of providing services. This also indicates that CMIFs are moving towards maturity stage while firm size as independent variable for IMFIs is showing positive relationship with HII. F.Sz. as moderator between NABO, PFEB, GLPO, SG, HR, PS, EPI, CP, AR and HII is showing positive relationship. This indicates that growth of IMFIs improves the social performance which leads towards the achievement of HH. The results are consistent with utilitarianism theory that both Islamic and conventional microfinance institutions' social performance leads towards achieving human happiness. For diagnostic tests, to overcome heterogeneity and autocorrelation issue, robust fixed method is applied on the sample sets. Further pre and posttest included descriptive analysis, Hausman test and vif analysis. Finally, the results indicate that social performance of both IMFIs and CMIFs is important to achieve human happiness. Moderating effect of firm size significantly impact on the relationship between social performance of conventional and Islamic microfinance institutions in achieving human happiness. There is no significant difference in social performance of conventional and Islamic microfinance institutions in achieving human happiness and the need is to improve regulations for the growth of IMFIs.

5.1 Policy Implications, Future Research Directions and Limitations

In terms of policy recommendations, the results of this study present several policy directions for the global Islamic and conventional institutions managers. These results can be applied to regional institutions, as both Islamic and conventional MFI managers should focus on social performance especially outreach to the poor women to achieve human happiness. The managers should realize that in the case of increasing the institution's size, social performance can be improved. This study also gives directions to the government, central bodies, and other regulatory authorities to develop policies for improving social performance, i.e., outreach and target market, specifically for Islamic microfinance institutions to achieve human happiness. Central bodies must switch from using outdated metrics used in MF industry related to governance, auditing, and client protection to gauge development and progress to metrics that focus on happiness and well-being. This study has taken multiple indicators of social performance that are extensively discussed in MIX reports. For future studies; financial performance indicators can be included in the study.

Authors Contribution

Amatul Mateen: introduction, data collection, methodology, data analysis and interpretation, drafting

Mohammad Ayaz: discussion, recommendations, revision, proofreading

Conflict of Interests/Disclosures

The authors declared no potential conflicts of interest w.r.t the research, authorship and/or publication of this article.

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