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THE INFLUENCE OF MICRO-FINANCE SERVICES ON THE NUTRITIONAL FOOD EXPENDITURE OF RURAL PEOPLE

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ABSTRACT
In many developing countries, rural communities struggle with malnutrition and poverty, which can be exacerbated by a lack of access to nutritious food. This can lead to a vicious cycle of poor health and economic stagnation. As far as a rural family is concerned, even a small sickness can impact the economic stability. Promoting the production and consumption of nutritious food in rural areas can have a positive impact on both health and development. By investing in local agricultural production and improving access to markets, rural communities can increase their income and improve their food security while also promoting the consumption of healthy, locally-grown foods. Additionally, promoting nutrition education and encouraging healthy eating habits can lead to improved health outcomes, reduced healthcare costs, and increased productivity. This, in turn, can help drive economic growth and improve overall quality of life in rural communities. "Micro-finance is the delivery of a wide range of financial services to low-income households and their microbusinesses, including deposits, loans, payment services, money transfers, and insurance." (Sharma 2001)[1]. Micro-finance has been recognised as a tool for poverty eradication. Services provided by micro-finance institutions and NGOs are somewhat helping rural people to invest on agriculture. The researcher has attempted to study whether there is any relation between the micro-finance schemes introduced in rural areas and the and the nutritional food expenditure of rural people. The stratified random sampling method has been used for selecting the sample. A survey method using an interview schedule has been employed for collecting primary data from 150 respondents who are the users of micro-finance schemes in rural areas. The collected data has been analysed and interpreted using descriptive analysis, the independent sample t test, the chi-square test, one sample T test and paired T test to arrive at proper conclusions. The research paper concludes that micro-finance services significantly influence the nutritional food expenditure of rural people in India.

Key Words: *Micro-finance, Nutritional food, Food expenditure, Rural people,*

Introduction
Living a happy life and securing a bright future is the major aim of many of the rural people in India. They are ready to work hard towards achieving their aim, and they have been somewhat successful in the process of fulfilling their dreams. Hard work alone will not provide long-term happiness; they must spend for nutritional foods for being healthy, this can lead to improved health outcomes, reduced healthcare costs, and increased productivity. This, in turn, can help drive economic growth and improve overall quality of life in rural communities. After the successful implementation of a microfinance scheme in Bangladesh, it has been recognised as a tool for poverty eradication. The process of earning an income alone will not measure the development of the rural community but the investments in healthy foods must also be a measure for development. In this context, the researcher tests whether the microfinance schemes are influencing the nutritional food expenditure of rural

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people. Many studies have been undertaken by various researchers related to rural people; but there is a little available about microfinance schemes and its influence on the nutritional food expenditure of rural people. Hence, the present research contributes to the knowledge of the relationship among micro-finance schemes and nutritional food expenditure.

Research Problem

A research problem is a claim about an issue that needs to be fixed, a difficulty that needs to be conquered, or a misleading matter that pops up in scholarly writing, in theory, or in practise and calls for careful consideration, analysis, and inquiry. The research problem is usually described in the form of some questions. Here, the present study focuses mainly on three questions: The first is, "What are the popular nutritional foods among rural people?" The second question is, "What are the most popular micro-financial services among rural people?" And the final question is "whether the micro-finance services influence the nutritional food expenditure of rural people or not?"

Objectives Of The Study

- ✓ To identify the most popular nutritional foods among rural people
- ✓ To identify the most popular Micro-finance services among rural people.
- ✓ To test whether all the statements about nutritional foods are agreed or disagreed.
- ✓ To test whether all the statements about micro-finance services are agreed or disagreed.
- ✓ To test the association between micro-finance services and the nutritional food expenditure of rural people

Significance Of The Study

Many research studies have been conducted in the area of rural problems. However, the research explaining the relation between a financial services like micro-finance and the food expenditure of rural people is unique as it has not been studied earlier. As you know, India is a country where the majority lives in rural areas; they have a vital role in the development of the country. Thus, it is important to study whether they are investing in healthy foods to being healthy. If people follow a healthy life style, it may increase the productivity. The micro-finance model is used as a tool to improve the income generation of people, especially those residing in rural areas. If it is successful in the process of generating income, then it might have some impact on the spending habit as well.

The present study is significant as it helps the government to investigate the nutritional food expenditure of rural people and to take necessary steps to encourage the healthy food habits.

Research Methodology

Research is a methodical, thorough investigation meant to gain a deeper understanding of the issues. Research methodology can be thought of as the scientific study of how research is conducted. It refers to the steps or methods used to locate, pick, organise, and assess data regarding research issues.

The research uses the primary data for analysis and interpretation of the problem.

The survey for primary data collection took place during the month of June 2022.

The Stratified random sampling method is used for sample selection.

The sample size for the study is 150 rural people who are the customers of micro-finance institutions.

The primary research tool used for gathering data is the personal interview survey method.

The reliability test is used to test the reliability of the questions and data.

The chi-square test, independent sample t test, and one sample T test, paired sample t tests are used to test the hypothesis.

Hypothesis Of The Study

Ho1: opinion regarding statements of nutritional foods are equal to the average level.

Ho2: opinion regarding statements of micro-finance services are equal to the average level.

Ho3: There is no significant difference between Male and Female with respect to factors of nutritional food expenditure.

Ho4: There is no association between Microfinance services and Nutritional food expenditure.

Ho5: There is no significant difference between the nutritional food expenditure before availing MF and after utilizing MF.

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Data Analysis And Interpretation

1. Reliability Test

Table.1.Reliability_Test Result Analysis

Variable	Number of items	Alpha (Cronbach.)	Rule of thump	Reliability Level
Nutritional foods	7	0.714	>0.70	Reliable
Micro-finance services	5	0.722		
MF effect on Nutritional food exp.	2	0.763		
Overall	14	0.849		

Source: SPSS data analysis

"Alpha (Cronbach) model is a model of internal consistency, based on the average inter-item correlation." (*IBM Documentation*, 2021)[2] , It is used to test the reliability of the variables related to Nutritional foods, microfinance services, and the microfinance effect on nutritional food expenditure. It was found that all the variables were reliable. The overall value of Alpha (Cronbach) is 0.849 and it is better than the rule of thump value. Hence, the variables are reliable.

Descriptive Analysis Of Micro-Finance And Nutritional Food Data

1. Descriptive analysis on popular nutritional foods.

Table.3. Most Popular Nutritional Foods.

Nutritional Foods	Mean	SD
Fish and meat	4.46	.682
Millets	4.02	1.013
Fruits	2.89	1.477
Nuts	2.31	1.237
Lentils	3.69	1.443
vegetables	4.26	.699
Edible seeds	1.88	1.215

Source: SPSS Data Analysis

Based on the mean score, the most popular nutritional foods among rural people are fish and meat (4.46), vegetables (4.26), and millets (4.02).

2. Descriptive analysis on Micro-finance services.

Table.4.Most popular Micro-finance services.

MF Services	Mean	SD
Micro Loans	4.43	.497
Skill Development programs	4.17	.553
Income Generation Programs	4.39	.489
Emergency loan	3.35	1.541
Micro Insurance	3.03	1.217

Source: SPSS Data Analysis

Based on the mean score, the most popular Micro-finance services among rural people are: microloans (4.43), income generation programmes (4.39), and skill development programmes (4.17).

INFERENTIAL ANALYSIS OF MICRO-FINANCE AND INVESTMENT PATTERN DATA

HYPOTHESIS I

Null Hypothesis:-opinion regarding statements on nutritional foods are equal to average level.

Table.6.T test for Specified-value (Average = 3) of Statements on nutritional foods.

Statements on nutritional foods	Mean	SD	t value	P value
Fish and meat	4.46	.682	26.227	< 0.001**
Millets	4.02	1.013	12.330	

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Fruits	2.89	1.477	-.940	.349
Nuts	2.31	1.237	-6.866	< 0.001**
Lentils	3.69	1.443	5.828	
vegetables	4.26	.699	22.068	
Edible seeds	1.88	1.215	-11.293	

"Note:**denotes significant at 1% level" (J & K, 2015)[3]

"Since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance" (J & K, 2015)[3] regarding all the Statements except the statement related to fruits. Hence, the opinions regarding fish, millets, nuts, lentils, vegetables, seeds are not equal to the average level. Based on the mean score, opinions regarding the statements on fish, meat, millets, lentils, vegetables are above average. Hence, they are the most popular. Opinions regarding the Statements on nuts and edible seeds are below the average level. Hence, they are least popular among the rural people.

HYPOTHESIS II

Null Hypothesis:-Opinion regarding statements on Micro-finance services are equal to the average level.

Table.7. t test for Specified value (Average = 3) of Statements on MF services.

Statements on investment avenues	Mean	SD	t value	P value
Micro-loan schemes	4.43	.497	35.307	< 0.001**
Micro-insurance schemes	3.03	1.217	.335	.738
skill development programs	4.17	.553	26.007	< 0.001**
Emergency loan scheme	3.35	1.541	2.755	.007
Income Generation programs (IGP)	4.39	.489	34.758	< 0.001**

"Note:**denotes significant at 1% level" (J & K, 2015)[3]

"Since P value is less than 0.01, the null hypothesis is rejected at the 1% level of significance" (J & K, 2015)[3] regarding the Statements on Micro-loan schemes, skill development schemes and IGPs. Hence, the opinion regarding the statements on microloan schemes, skill development schemes, and IGPs is not equal to the average level. Based on the mean score, opinions regarding the statements on microloan schemes, skill development schemes, and IGPs are above the average level. These are the schemes that make microfinance more popular among rural people. Hence, these schemes are immensely popular among rural people and are repeatedly used by them.

Since P value is greater than 0.05, the null hypothesis fails to get rejected at the 5% level of significance regarding the statements on microinsurance schemes and emergency loan schemes. Hence the opinion regarding the Statements on Microinsurance Schemes and Emergency Loan Schemes are equal to average levels.

Hypothesis Iii

Null Hypothesis:-There is no significant difference between Male & Female with respect to Factors of nutritional food expenditure.

Table.8.T test for significant difference between Male and Female with respect to Factors of nutritional food expenditure.

	Gender				t value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Nutritional foods	25.80	4.262	21.74	4.696	5.458	<0.001**

"Note:denotes significant at 1% level"** (J & K, 2015)[3]

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"Since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance regard to the difference between Male and Female" (J & K, 2015)[3] with respect to factors of nutritional food expenditure. Hence, there is a significant difference between Male and Female with respect to factors of nutritional food expenditure.

HYPOTHESIS IV

Null Hypothesis:-There is no association between Microfinance services and nutritional food expenditure.

Table.9.Chi-square test for association between Microfinance services and nutritional food exp.

Microfinance services	Food expenditure			Total	Chi-square value	P value
	Low	Moderate	High			
Moderate	38 (42.2) [100]	52 (57.8) [74.3]	0 (0) [0]	90 (100.0) [60]	84.268	<0.001**
High	0 (0) [0]	18 (30) [25.7]	42 (70) [100]	60 (100.0) [40]		
Total	38 (25.3) [100.0]	70 (46.7) [100.0]	42 (28) [100.0]	150 (100.0) [100.0]		

"Note: 1. The value within ( ) refers to Row Percentage
2. The value within [ ] refers to Column Percentage
3. ** Denotes significant at 1% level" (J & K, 2015)[3]

"Since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance" (J & K, 2015)[3] regard to the association between microfinance services and the nutritional food expenditure of rural people. Hence, microfinance services have a positive influence on the spending for nutritional foods.

Hypothesis V

Null Hypothesis:- There is no significant difference between the nutritional food expenditure before availing MF and after utilizing MF.

Table.7. Paired sample T test for difference between the nutritional expenditure before availing MF and after utilizing MF.

Paired Differences	Nutritional food expenditure before availing MF services		Nutritional food expenditure after utilising MF services		t	P
	Mean	SD	Mean	SD		
Before and after MF services	2242	1303	3025	1842	9.274	<0.001**

"Note:**denotes significant at 1% level" (J & K, 2015)[3]

"Since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance" (J & K, 2015)[3]. Hence, there is a significant difference between the nutritional food expenditure before availing micro finance services and after utilizing micro finance services. Based on the mean score, there is a considerable increase in expenditure (3025) after the utilization of micro finance services when it is compared with before availing micro finance services (2242). This increase in expenditure indicates the influence of MF services on nutritional food expenditure of rural people.

Findings

- The most popular nutritional foods among rural people are fish, meat, millets, lentils, vegetables.
- Opinions regarding the statements on fish, meat, millets, lentils, vegetables are above average
- Opinions regarding the Statements on nuts and edible seeds are below the average level

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- The three most popular microfinance services among rural people are: microloans, income generation programs, and skill development programs.
- There is a significant difference between Male and Female with respect to factors of nutritional food expenditure.
- There is a significant association between microfinance services and the nutritional food expenditure of rural people. microfinance services have an influence on the spending for nutritional foods.
- there is a significant difference between the nutritional food expenditure before availing micro finance services and after utilizing micro finance services
- there is a considerable increase in expenditure after the utilization of micro finance services when it is compared with before availing micro finance services.

Conclusions

The research empirically studied the influence of micro-financial services on the expenditure on nutritional foods of rural people and found that the micro-finance services have a highly significant influence on the nutritional food expenditure of rural people.When it comes to the most popular nutritional foods; fish, meat, millets, lentils, vegetables comes first. Microloans, income generation programs, and skill development programmes constitute the top three positions for popular micro-financial services.

Micro-finance, Income generation for rural people, their spendings for healthy foods, and the country's prosperity—everything is connected to one-another. Micro-finance services help rural people to generate additional income, and this additional income will influence the spending habits for nutritional foods. Only with a wealthy and healthy people, one country can move towards prosperity. The government and financial institutions can use all the information availed through the current research to plan their route towards building a healthy and wealthy rural community.

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