

**Co-operative University, Sagaing**



**A Study on the Market Situation  
of  
Selected Staple Food in Sagaing City**

**Department of Commerce**

**March 2016**

## **Market Research Team Members**

- 1. U Zeya Min Swe - Associate Professor**
- 2. Daw Ei Ei Po - Associate Professor**
- 3. Daw Mai Ei Ei San - Associate Professor**
- 4. Daw Aye Aye New - Lecturer**
- 5. Daw Htet Htet Hlaing - Lecturer**
- 6. U Than Swe Tun - Tutor**
- 7. Daw Khin Myo Htet - Tutor**
- 8. Daw Myint Myint Aye - Tutor**
- 9. Daw Tin Nilar Win - Tutor**
- 10. Daw Tin Zar Lin - Tutor**
- 11. Daw Kay Khine Oo - Tutor**
- 12. Daw Khin Myat Kyu - Tutor**
- 13. Daw Sable Oo - Upper Clerk Division**
- 14. Daw Thi Thi Lwin - Volunteer Tutor**
- 15. Daw Khin Zar Win - Volunteer Tutor**

## **Abstract**

This paper examined selected food market analysis in Sagaing City. Primary data were collected during 2015 from 74 respondents who are trading as retailing traders 44 and both retail & wholesale traders 30. The results indicated that female persons have more participated 82.4 % of all respondents in the market. 52.7% of total respondents have not yet finished middle school education. 93.2% of total respondents are Burmese, Buddhists, and have experience in trading more than 3 years. 77% (57 out of total 74 respondents) have purchased goods from other districts. 62 respondents (83.8%) do not want to change the sources of purchase. almost 95% of all respondents acquired goods within 1 month. 48 of total respondents (64.9%) are trading on credit system. Price information are reliable nearly 80%. Price information do not effect on trading significantly. The market assessment found that key food items (i.e. rice, meat, fish and vegetables) are available from traders and farmers of other districts year-round. Food availability of the main staple rice is sufficient for local. 80 percent of surveyed traders indicated that they would be willing to participate in a voucher scheme in collaboration within a week. In order to monitor food availability and traders and prices behavior, next market survey should have a better understanding of rice production forecasts and paddy rice border-trade. In order to continually inform market-based interventions in Sagaing with up to date information, this market assessment should be looked at together with the price and wage monitoring bulletin.

**Key words:** food market analysis, market assessment, food availability.

## **Acknowledgements**

First and foremost we wish to express my deepest appreciate to our Rector, Dr. Daw Yi Aye, Co-operative University Sagaing, for her continued encouragement and endless support me to undertake and accomplish this research paper.

Similarly, we are also very thankful to Professor Daw Khin Aye Myint, Head of Department of Statistics, for her valuable advice, guidance and statistical assistance to carry out this research paper successfully.

We are also grateful to all people who helped and contributed in diverse ways to carry out this research directly or indirectly in successfully completing this paper.

Not forgetting to those who have spent their valuable time by taking part in the survey questionnaire for this research. There would not be a good report like this without their collaborations on this research, we will grateful to you all.

## Contents

	Page
Abstract	i
Acknowledgements	ii
Contents	iii
List of Tables	iv
<b>Chapter 1 Introduction</b>	<b>1</b>
1.1 Rationale of the Study	2
1.2 Objectives of the Study	2
1.3 Scope and Limitations of the Study	2
1.4 Methodology and sampling framework	2
1.5 Organization of the Study	3
<b>Chapter 2 Background Information and Overview of Staple Food Market</b>	<b>4</b>
2.1 Background Information	4
2.2 Why are markets important for food security?	5
2.3 How is a Trader survey linked to food security and response analysis	5
2.4 What types of trader survey are relevant for staple food Market?	5
<b>Chapter 3 Analysis of data</b>	<b>7</b>
3.1 Respondent's Demographic Profile	7
3.2 Analysis of Market Responses	10
3.3 Respondents' Current Investment and Education Level Concerns	16
3.4 Goods Acquisition and Limitations Concerns	26
<b>Chapter 4 Conclusion</b>	<b>30</b>
4.1 Findings	30
4.2 Constraints	31
4.3 Response to improvement	31
4.4 Recommendation	32
<b>References</b>	
<b>Appendices</b>	

## List of Tables

	<b>Page</b>	
Table 3.1	Classification of respondent by Age	7
Table 3.2	Classification of respondent by Gender	8
Table 3.3	Classification of respondent by Ethnic	8
Table 3.4	Classification of respondent by Education	8
Table 3.5	Classification of respondent by Religion	9
Table 3.6	Classification of respondent by Business Experience	9
Table 3.7	Comparison of Initial Investment and Current Investment of respondents	10
Table 3.8	Sales conditions after shock	11
Table 3.9	Time to Recover Sales after shock	11
Table 3.10	Source of Purchase	12
Table 3.11	Source of Purchase Change or Not	12
Table 3.12	Goods acquisition and turnover	13
Table 3.13	Keeping Stock Level	13
Table 3.14	Types of Sales	14
Table 3.15	Future Sales Price	14
Table 3.16	Market Price Information	15
Table 3.17	Price Information Reliability	15
Table 3.18	Price Information Effect on Trading	16
Table 3.19	Frequency and percent distribution of Current Investment and Types of Business	16
Table 3.20	Cross-tabulation between Current Investment and Types of Business	17
Table 3.21	Frequency and percent distribution of	18
Table 3.22	Cross-tabulation between current investment and types of goods trading	19
Table 3.23	Frequency and percent distribution of Current Investment and Stock Levels before shock	20
Table 3.24	Cross-tabulation between Current Investment and Stock Levels before shock	21
Table 3.25	Frequency and percent distribution of Current Investment Source of Purchase	21

Table 3.26	Cross-tabulation between current investment and sources of purchase	22
Table 3.27	Frequency and percent distribution of Education level and Types of Business	23
Table 3.28	Cross-tabulation between education and Types of Business	24
Table 3.29	Frequency and percent distribution of Education Types of Sales	24
Table 3.30	Cross-tabulation between education level and types of sales	25
Table 3.31	Frequency and percent distribution of Source of Purchase Types of Business	26
Table 3.32	Cross-tabulation between sources of purchase and types of business	26
Table 3.33	Frequency and percent distribution of Source of Purchase and Types of Sales	27
Table 3.34	Cross-tabulation between sources of purchase and types of sales	28
Table 3.35	Frequency and percent distribution of Goods Acquisition turnover and Types of Business	28
Table 3.36	Cross-tabulation between goods acquisition turnover and types of business	29

### **List of Figures**

Figure 3.1	Comparison of Initial Investment and Current Investment	10
------------	---	----

## **Chapter 1**

### **Introduction**

All over the country, the major share of staple food costs the consumer is typically accounted for by marketing costs. Efforts to improve food productivity and commercialization are critical to achieve regional income growth and food security. The potential for future income growth and productivity growth in the region are probably to be linked with future cost reduction in the marketing system.

The development of staple food markets will absolutely play an important role in providing local needs to achieve income growth, poverty reduction, and food security. Staple food markets in local are still performing under severe burden which restrict their ability to contribute to the achievement of the facts which include price inelastic, market failures regarding weak infrastructure, farmers participation, food policy, and coordination among traders.

Staple food markets are very price inelastic. In an environment of large weather-driven changes in production, inelastic demand gives rise to wide price fluctuations.

Market failures commonly observed in the region reflect chronic underinvestment in productivity - enhancing public goods. The costs of participation in markets are usually high in most of local (Myanmar) due to limited investment in transport infrastructure, ports, rail, road, and electricity.

Farmer participation in staple food market is also constrained by weak commitments to crop science, especially relevant for semi-arid conditions, and effective extension services of farmers.

The staple food policy environment in many countries is highly unpredictable. It is sometimes assumed that policy reforms were implemented and hence the policy environment poses no special challenges. We strongly disagree with this view. In fact, policy uncertainty, vacillation, and institutional vacuums are the norm in much of the region, which lead to problems of credible commitment with the private sector.

Staple food marketing systems are characterized by weak coordination among the players in the value chain/marketing system: transporters are unable to coordinate well with traders in the potential use of cost-reduction marketing and transport technology. Larger traders in one country are often prohibited from linking with millers seeking food in other countries. The development of more structured markets is frequently lost due to controls on trade.



## **1.1 Rationale of the Study**

Market also plays an important role in implementing external responses to food insecurity. In terms of external responses to food insecurity, markets are also crucial for local or regional food procurement by households situated in the district.

It is important that this market assessment is to ascertain the suitability of cash flow in local. The section will directly address (i) whether food markets in local are complete, (ii) if traders in food markets can respond adequately to an increase in demand, and (iii) whether a cash injection into households would contribute to rising prices. All analyses are disaggregated to, food commodity and market type.

There will be achieved if this research has been carried out as part of a study for the fulfillment of the local needs. Additionally, this assessment aims to contribute to the linkages between markets, food security, and household livelihoods and to identify the strengths and limitations of alternative options to develop local markets.

## **1.2 Objectives of the Study**

The main objective of the study is to conduct assessment for selected staple foods in Sagaing Township. The specific objectives are:

- to address the function of selected staple food in local markets.
- to identify volume flow between retail and wholesale sectors, local use or consumption of staple foods
- to discover the ways for improving market performance

## **1.3 Scope and Limitations of the Study**

The report is based on the market survey on the selected staple foods in Sagaing Township, which are: (1) rice, (2) beans and pulses, (3) vegetables, (4) meat and fish, and (5) spices and ingredient. Data is available in 2015.

Targeted population in the survey includes the respondents who have traded in Myoma Market and Ywar Htaung Market of Sagaing Township. A sample size is 74 respondents who were chosen by simple random sampling method.

## **1.4 Methodology and sampling framework**

A pilot survey was conducted to identify the major staple food in the market. This survey assisted in the designing for review and structure questionnaires. After that primary data were collected for this survey. Primary data collection was conducted trader

surveys and market surveys. In selecting the markets to survey, simple random sampling was used (74 respondents), the markets were selected based on within each market at local was visited at least three/ two times. Within each selected market, traders of rice, beans and pulses, meat and fish, vegetables, or other spices and ingredient were randomly selected as interviewees. The data collected were analyzed using descriptive and inferential statistics. Descriptive statistics make use of frequency distribution and cross tabulation. In particular trader response capacity, physical accessibility, market response, and cash or credit schemes are used for additional analysis. Retail prices are not used for additional analysis because of sufficient historical data is not available.

### **1.5 Organization of the Study**

This report is structured in four chapters. Chapter (1) presents the introduction of the crucial aspects of staple food market for local and the facts to achieve regarding market. Chapter (2) explains why and how important markets are for food security. Then Chapter (3) describes the analysis of data which are collected in the markets. Finally, Chapter (4) draws conclusion and make suggestions to improve food market.

## **Chapter 2**

### **Background Information and Overview of Staple Food Market**

#### **2.1 Background Information**

Sagaing Township is situated at southeast district of Sagaing Region. It is located on the Ayeyarwaddy River, 20 kilometers of Mandalay. Agriculture is the mainstay of the local economy, followed by livestock, fresh water fisheries, and agro-industrial activities. In early 2014, the Government's Department of Rural Development (DRD) and World Food Program carried out a food security survey, involving a total of 1800 households from 150 villages in Sagaing Region. The survey was compartmentalized into three strata (i.e., north, south and center).

In July 2015, Sagaing Township was severely devastated by widespread flooding, triggered by heavy monsoonal rains and exacerbated by the tropical Cyclone Komen. Multi-sector Initial Rapid Assessment (MIRA) report indicated 80 percent in Sagaing Region reported in partial or total crop loss and only 29 percent reported having food stock for more than one month.

Approximately 20 percent of women/caretakers assessed through MIRA reported having problems feeding children below two years of age, contributed by three major factors including insufficient access/ availability of food. As this report, 4 percent of the visited villages have a market.

There are four markets in Sagaing City: Myoma Market, Shwe Min Wun Market, Ywar Htaung Market, and Thawtar Pan Market. Among them, Myoma Market and Ywar Htaung Market are selected to analyze the staple foods and market responses before and after shock.

These shocks may be a consequence of natural or man-made disasters, such as an earthquake, flooding, trade restrictions or civil unrest in a country that is a major source of food imports or in case of a worldwide food price hike or substantial exchange rate fluctuations.

There are other trader surveys that are tailored to meet specific needs and objectives. For instance, trader surveys focusing on the current and future market conditions for food procurement:

## **2.2 Why are markets important for food security?**

Market also plays an important role in implementing external responses to food insecurity. In terms of external responses to food insecurity, markets are also crucial for local or regional food procurement by households situated in the district.

Rice is one of the most important staple foods in Myanmar. Beans and Peas are the second most common staple food after rice. Preside, Vegetables, meat and fish are other important staple food for human beings and other living things. These five staple foods provide energy, vitamins, and several proteins.

## **2.3 How is a trader survey linked to food security & response analysis?**

Understanding markets helps to understand food security and finding the appropriate solutions rough to food insecurity. Food security and markets analysis are integrated under overall analysis plan. The Comprehensive Food Security and Vulnerability Analysis (CFSVA) Guidelines recommend elaborating an analysis plan that identifies the tools to use for understanding the three dimensions of food security (availability, access and consumption/use) and for the appropriate response strategy. The analysis plan shows the question the market analysis (including a trader survey) will need to answer and where these answers will be used in the report. Using the overall analysis plan to draw up a specific market analysis plan is highly recommended.

## **3. What types of trader survey are relevant for staple food market?**

Trader surveys are undertaken in the following contexts;

- i. When assessing the impact of a sudden or slow-onset shock on food security, and possible responses including cash/credit interventions;
- ii. When assessing the future effects of an external shock on the market system;
- iii. When assessing local food procurement opportunities; and
- iv. When monitoring food markets.

A trader survey principally to understanding:

- a) Current and facture food availability conditions on markets:
- b) Current and facture sale and purchase conditions for households, linked to food access: and
- c) The capacity of markets to respond to shocks and responses.

The link to final decision-making on response options is four-fold

- 1) The 6 months outlook on purchase and sale conditions and food availability influences the expected severity and scope of food insecurity, and, in turn, this influences the size, timing and targeting of food assistance and an assessment of its potential negative impacts on the markets;
- 2) The overview of market constraints may point to specific market and regulatory interviews that may contribute to alleviating food insecurity:  
and
- 3) The market conditions, constraints and capacity allow for concluding whether or not local procurement and / or a voucher/ cash programme are desirable from a market perspective.

## Chapter 3

### Analysis of Data

This chapter presents the findings from the data collecting through the market survey. The data from the respondents are mostly concerned with amount of purchase and sales, sources of purchase, types of sales on goofs trading, and market response based on the goods analysed. The data are collected from the two markets of Sagaing, such as Myoma Market and Ywar Htaung Market. Such data gathering is used by structured questionnaires and face-to-face interview with respondents.

This chapter divided into three parts: respondent's profile, analysis of market response and cross-tabulation between respondents' concerns and market related concerns. Respondent's demographic profile and cross-tabulation are used by presenting descriptive statistics.

#### 3.1 Respondent's Demographic Profile

In this part, the distribution frequencies analysis is used for respondent's information from the two markets. These demographic variables are age, gender, ethnic, education and religion. This analysis has been performed through organizing, ordering, classifying and summarizing of the raw data collected. Descriptive statistics is used in this segment report to derive percentages and frequencies.

##### 3.1.1 Respondent's Age

**Table 3.1**  
**Classification of respondent by Age**

Age Group	No. of respondent	Percent
Under 35	16	21.6
35-44 Yr	16	21.6
45-54 Yr	27	36.5
55 and above	15	20.3
Total	74	100

Source: Survey data from the markets of Sagaing City

According to age-wise distribution, from the 74 total respondents, the researcher found that the highest respondent group was between the ages (46-55), which are equal (36.5) percent (27 respondents). The second highest groups the ages (under-35) and between (36-45), which are equal (21.6) percent (16 respondents). These two groups are the same. The rest group was the least for the ages (over55), which is equal (20.3) percent (15 respondents) as shown in the above table (3.1).

### 3.1.2 Respondent's Gender

**Table 3.2**

#### **Classification of respondent by Gender**

<b>Gender</b>	<b>No. of respondent</b>	<b>Percent</b>
Male	13	17.6
Female	61	82.4
Total	74	100

Source: Survey data from the markets of Sagaing City

In Gender-wise distribution, from the (74) total respondents, the female's respondents are more than the males whereby the number of the females are (61) women which is equal (82.4) percent and the males are (13) men which is equal to (17.6) percent. That information is shown in the above table 3.2.

### 3.1.3 Respondent's Ethnic

**Table 3.3**

#### **Classification of respondent by Ethnic**

<b>Ethnic</b>	<b>No. of respondent</b>	<b>Percent</b>
Burmese	69	93.2
Others	5	6.8
Total	74	100

Source: Survey data from the markets of Sagaing City

From ethnic-wise distribution table (3.3), it was found that the majority of respondents are Burmese (93.2) percent which is equal 69 respondents over (74). The rest of the respondents are other races (6.8) percent which is equal to (5) respondents.

### 3.1.4 Respondent's Education

**Table 3.4**

#### **Classification of respondent by Education**

<b>Education</b>	<b>No. of respondent</b>	<b>Percent</b>
Illiterate	3	4.1
Monastery Education(Baka)	4	5.4
Primary and Secondary	39	52.7
Higher Education	14	18.9
Graduate	14	18.9
Total	74	100

Source: Survey data from the markets of Sagaing City

In this part of demographic table (3.4), most respondents have experienced in primary and secondary education (52.7) percent, which is equal 39 respondents over 74. Illiterate respondents are the least with 3 respondents which is equal to (4.1) percent.

As for the respondents who are graduated is equal to the number of experiences in higher education with the (14) respondents (18.9) percent respectively. The second last of this group is experienced in monastery education (Baka), who are (4) respondents with (5.4) percent.

### 3.1.5 Respondent's Religion

**Table 3.5**

**Classification of respondent by Religion**

<b>Religion</b>	<b>No. of respondent</b>	<b>Percent</b>
Buddhist	69	93.2
Others	5	6.8
Total	74	100

Source: Survey data from the markets of Sagaing City

This religion-wise distribution is found that (93.2) percent of respondents are Buddhists who are equivalent to 69 people over total 74. The rest of the respondents are people (6.8) percent, who are other religions.

### 3.1.6 Respondent's Business Experience

**Table 3.6**

**Classification of respondent by Business Experience**

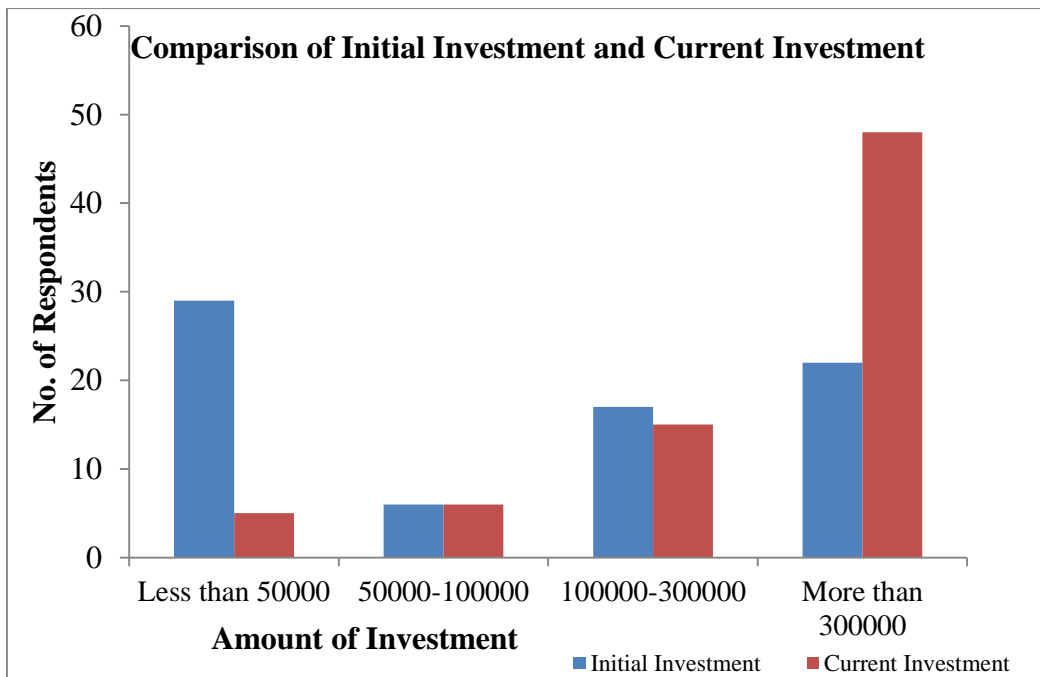
<b>Business Experience</b>	<b>No. of respondent</b>	<b>Percent</b>
Less than 3 Yr	5	6.8
More than 3Yr	69	93.2
Total	74	100

Source: Survey data from the markets of Sagaing City

In this classification of business experience, the majority of the respondents have experience more than 3-years with (93.2) percent counting (69) people of total 74. The rest of the respondents was 5 people who have experience less than 3-years with (6.8) percent.



**Figure 3.1**



Source: Survey data from the markets of Sagaing City

**Table 3.7**

**Comparison of Initial Investment and Current Investment of respondents**

Amount of Investment	No. of Respondents	
	Initial Investment	Current Investment
Less than 50000	29	5
50000-100000	6	6
100000-300000	17	15
More than 300000	22	48
Total	74	74

Source: Survey data from the markets of Sagaing City

By comparing initial and current investment of respondents, most of the respondents who invest less than (50000) Kyats have increased their current investment. Two-third of respondents had invested under (300000) Kyats initially and at present nearly two-third of respondents are investing over (300000) Kyats in their business. So, they need investment more than previous three years.

### 3.2 Analysis of Market Responses

Market responses include the involvement of the customers, traders, and other market related consideration. Such including concerns are numbers of customers within a week, purchasing power, sources of purchase, stock (inventory) keeping, types of sales,

price information and its variation. This analysis was based on the types of business ownership: retailing traders and the traders who do retail and wholesale both.

### 3.2.1 Sales Conditions after Shock

Analysis of market responses are presented from Table (3.8) to Table (3.18). Frequency and percent distribution of respondents in the survey by sales condition after shock are presented in Table (3.8).

**Table 3.8**

**Sales conditions after shock**

	<b>No. of respondent</b>	<b>Percent</b>
Higher	8	10.8
Lower	37	50.0
Same Level	29	39.2
Total	74	100.0

Source: Survey data from the markets of Sagaing City

According to the results, 37 out of 74 totals (50% of respondents) have suffered decreases in sales condition.

### 3.2.2 Time to Recover Sales after Shock

Frequency and percent distribution of respondents in the survey by time to recover sales after shock are presented in Table (3.9).

**Table 3.9**

**Time to Recover Sales after Shock**

	<b>No. of respondent</b>	<b>Percent</b>
Increase or No Change	37	50
Within 3 weeks	3	4.1
1 - 3 months	14	18.9
More than 3 months	20	27
Total	74	100.0

Source: Survey data from the markets of Sagaing City

From the results of Table (3.8) and Table (3.9), except 3 respondents (4.1) percent of 37 respondents (totally 50 percent) need 3-weeks to recover sales, another 14 respondents need between one to three months, and the rest 20 respondents need more than three months.

### 3.2.3 Sources of Purchase

Frequency and percent distribution of respondents in the survey by sources of purchase are presented in Table (3.10).

**Table 3.10**

#### **Sources of Purchase**

	<b>No. of respondent</b>	<b>Percent</b>
Farmers in Districts	5	6.8
Famers from other districts	2	2.7
Traders in Districts	12	16.2
Traders from other districts	55	74.3
Total	74	100.0

Source: Survey data from the markets of Sagaing City

In this frequency and percent distribution, there are four groups: 5 respondents (6.8) percent of total have purchased from farmers in districts, 2 respondents (2.7) percent of total have purchased from farmers of other districts, 12 respondents (16.2) percent of total have purchased from traders in districts, and 55 respondents (74.3) percent of total have purchased from traders of other districts.

### 3.2.4 Source of Purchase Change or Not

In Table (3.11), frequency and percent distribution of respondents in the survey by sources of purchase change or not are presented.

**Table 3.11**

#### **Source of Purchase Change or Not**

	<b>No. of respondent</b>	<b>Percent</b>
No change	62	83.8
Change from others	12	16.2
Total	74	100.0

Source: Survey data from the markets of Sagaing City

According to this result, most respondents did not have the willing to change the source of purchase as showing 62 respondents (83.8) percent. A few respondents 12 out of 74 (16.2 percent of total respondents) have willing to change the source of purchase.

### 3.2.5 Goods Acquisition and Turnover

Frequency and percent distribution of respondents in the survey by goods acquisition and turnover are presented in Table (3.12).

**Table 3.12**  
**Goods Acquisition and Turnover**

	<b>No. of respondent</b>	<b>Percent</b>
Uncertainty	11	14.9
Daily	15	20.3
Within a week	35	47.3
Within 2 weeks	10	13.5
Over 1 month	3	4.1
Total	74	100.0

Source: Survey data from the markets of Sagaing City

As a result, from the 74 total respondents, the researcher found that the highest respondent group was good acquisition within a week, which are equal (47.3) percent (35 respondents). The second highest group was good acquisition daily, which is equal (20.3) percent (15 respondents). The rest groups were good acquisition within 2 weeks, 10 respondents (13.5) percent, over 1-month (3 respondents, 4.1 percent) and 11 respondents (14.9) percent are uncertainty.

### 3.2.6 Keeping Stock Level

Frequency and percent distribution of respondents in the survey by keeping stock level are presented in Table (3.13).

**Table 3.13**  
**Keeping Stock Level**

	<b>No. of respondent</b>	<b>Percent</b>
The same level	49	66.2
Provide more	8	10.8
Provide less	17	23.0
Total	74	100.0

Source: Survey data from the markets of Sagaing City

Based on as good acquisition and turnover shown in level Table (3.12) and keeping stock level Table (3.13), from the 74 total respondents, the researcher found that the respondent group who keeps the same stock level were 49 people, which are equal (66.2) percent of total respondents. The second highest groups who keep less was (23) percent and who keep more was (10.8) percent.

### 3.2.7 Types of Sales

Frequency and percent distribution of respondents in the survey by types of sales of the business are presented in Table (3.14).

**Table 3.14**

#### **Types of Sales**

	<b>No. of respondent</b>	<b>Percent</b>
Credit Sales	48	64.9
No Credit Sales	26	35.1
Total	74	100.0

Source: Survey data from the markets of Sagaing City

According to cash and credit system, from the 74 total respondents, there are 26 respondents who are trading in cash, which are equal (35.1) percent. Other 48 respondents are sometimes trading on credit, which is equal (64.9) percent. So, the respondents who use credit system are greater than those whose use in cash.

### 3.2.8 Future Sales Price

Frequency and percent distribution of respondents in the survey by future sales price forecasting on future sales price are presented in Table (3.15).

**Table 3.15**

#### **Future Sales Price**

	<b>No. of respondent</b>	<b>Percent</b>
No change	47	63.5
Decrease price	6	8.1
Increase price	21	28.4
Total	74	100.0

Source: Survey data from the markets of Sagaing City

As a result of estimation on future sales price, there are three groups. Out of the 74 total respondents, 47 respondents (the most) believe that sales price cannot be changed within six months, which are equal (63.5) percent. Another group including 6 respondents who thinks about sale price will be decreased, which are equal (8.1) percent. The rest group estimates that sales price will be increased because of seasonal products, which is equal (28.4) percent (21 respondents).

### 3.2.9 Market Price Information

Frequency and percent distribution of respondents in the survey by the way of getting market price information are presented in Table (3.16).

**Table 3.16**

#### **Market Price Information**

	<b>No. of respondent</b>	<b>Percent</b>
From local traders	42	56.8
From others sources	32	43.2
Total	74	100.0

Source: Survey data from the markets of Sagaing City

By the way of getting market price information, from the 74 total respondents, it is found that 42 respondents can collect the market price information from local traders, which are equal (56.8) percent. Another group who gathers the market price information from other sources includes 32 respondents, which are equal (43.2) percent.

### 3.2.10 Price Information Reliability

Frequency and percent distribution of respondents in the survey by price information reliability are presented in Table (3.17).

**Table 3.17**

#### **Price Information Reliability**

	<b>No. of respondent</b>	<b>Percent</b>
Reliability	58	78.4
No Reliability	16	21.6
Total	74	100.0

Source: Survey data from the markets of Sagaing City

According to reliability on the market price information, from the 74 total respondents, it is found that 58 respondents can be reliable on the market price, which are equal (78.4) percent. Another group who cannot be reliable on the market price information includes 16 respondents, which are equal (21.6) percent.

### 3.2.11 Price Information Effect on Trading

Frequency and percent distribution of respondents in the survey by price information effect on trading are presented in Table (3.18).

**Table 3.18**

**Price Information Effect on Trading**

	<b>No. of respondent</b>	<b>Percent</b>
More effect	5	6.8
Less effect	28	37.8
No effect	41	55.4
Total	74	100.0

Source: Survey data from the markets of Sagaing City

As a result of price information these will be effect on trading, there are three groups. Out of the 74 total respondents, 41 respondents (the most) believe that price information cannot be effect on trading, which are equal (55.4) percent. Other 28 respondents think about price information will be less effect on trading, which are equal (37.8) percent. The rest group estimates that price information will be more effect on trading, which is equal (6.8) percent (5 respondents).

**3.3 Respondents' Current Investment and Education Level Concerns**

Frequency and percent distribution of types of business by their current investment are presented in Table (3.19).

**Table 3.19**

**Frequency and percent distribution of Current Investment and Types of Business**

		<b>Types of Business</b>		<b>Total</b>
		<b>Retailing</b>	<b>Retail &amp; Wholesales</b>	
<b>Current Investment</b>	Less than 50000	5 (6.8%)	0	5 (6.8%)
	50000-100000	4 (5.4%)	2 (2.7%)	6 (8.1%)
	100000-300000	11 (14.9%)	4 (5.4%)	15 (20.3%)
	300000-1000000	13 (17.6%)	6 (8.1%)	19 (25.7%)
	More than 1000000	11 (14.9%)	18 (24.3%)	29 (39.2%)
	Total	44 (59.5%)	30 (40.5%)	74 (100%)

Source: Survey data from the markets of Sagaing City

By the current investment of the types of business, there are five groups in this analysis. The group who invests in less than 50000 Kyats participated 5 respondents (6.8%). The group who invests in (50000-100000) Kyats participated 6 respondents (8.1%). The group who invests in (100000-300000) Kyats participated 15 respondents (20.3%). The group who invests in (300000-1000000) Kyats participated 19 respondents (25.7%). The group who invests in more than 1000000 Kyats participated 29 respondents (39.2%) respectively. Among them (59.5%) of all respondents have invested in retailing businesses and (40.5%) of respondents have invested in retail & wholesale businesses. There is no only wholesale business in this market.

**Table 3.20**

**Cross-tabulation between Current Investment and Types of Business**

		Types of Business	
		Retailing	Retail & Wholesales
Current Investment	Less than 50000	5 (100%)	0
	50000-100000	4 (66.7%)	2 (33.3%)
	100000-300000	11 (73.3%)	4 (26.7%)
	300000-1000000	13 (68.4%)	6 (31.6%)
	More than 1000000	11 (37.9%)	18 (62.1%)

Source: Survey data from the markets of Sagaing City

Cross-tabulation between Current Investment and Types of Business is presented in Table (3.20).

Among these current investment levels, the highest investments group (more than 1000000 Kyats) is greater in retail & wholesale than retailing. Except these group, all other groups: at less than 50000 Kyats group have invested in 100% retailing and none in retail & wholesale, at (50000-100000) have invested in 66.7% in retailing and 33.3% in retail & wholesale, at (100000-300000) have invested in 73.3% in retailing and 26.7% in retail & wholesale, at (300000-1000000) have invested in 37.9% in retailing and 62.1% in retail & wholesale. So, the higher investment will lead to wholesale.



**Table 3.21**  
**Frequency and percent distribution of**  
**Current Investment Types of Good Trading**

		Types of Good Trading					
		Vegetable	Rice	Beans and Peas	Spices and Ingredient	Meat and Fish	Total
Current Investment	Less than 50000	3 (4.1%)	0	0	2 (2.7%)	0	5 (6.8%)
	50000-100000	5 (6.8%)	0	1 (1.4%)	0	0	6 (8.2%)
	100000-300000	6 (8.2%)	0	0	8 (10.8%)	1 (1.4%)	15 (20.3%)
	300000-1000000	1 (1.4%)	1 (1.4%)	5 (6.8%)	9 (12.2%)	3 (4.1%)	19 (25.7%)
	More than 1000000	1 (1.4%)	11 (14.9%)	6 (8.2%)	9 (12.2%)	2 (2.7%)	29 (39.2%)
	Total	16 (21.6%)	12 (16.2%)	12 (16.2%)	28 (37.8%)	6 (8.2%)	74 (100%)

Source: Survey data from the markets of Sagaing City

Frequency and percent distribution of current investment and types of trading are presented in Table (3.21).

According to current investment and goods trading, there are five groups in this analysis. The group who invests in less than 50000 Kyats participated 5 respondents (6.8%). The group who invests in (50000-100000) Kyats participated 6 respondents (8.1%). The group who invests in (100000-300000) Kyats participated 15 respondents (20.3%). The group who invests in (300000-1000000) Kyats participated 19 respondents (25.7%). The group who invests in more than 1000000 Kyats participated 29 respondents (39.2%) respectively. Among them (21.6%) of all respondents have invested in vegetables trading, (16.2%) of respondents have invested in rice trading, (16.2%) of respondents have invested in beans and peas trading, (37.8%) of respondents have invested in spices and ingredient trading, and (8.2%) of respondents have invested in meat and fish trading. These types of goods trading are selected for most households consumed in line with traders and consumers point of views.

**Table 3.22****Cross-tabulation between current investment and types of goods trading**

		<b>Types of Good Trading</b>				
		<b>Vegetable</b>	<b>Rice</b>	<b>Beans and Peas</b>	<b>Spices and Ingredient</b>	<b>Meat and Fish</b>
<b>Current Investment</b>	Less than 50000	<b>3</b> <b>(60%)</b>	0	0	2 (40%)	0
	50000-100000	<b>5</b> <b>(83%)</b>	0	1 (17%)	0	0
	100000-300000	6 (40%)	0	0	<b>8</b> <b>(53%)</b>	1 (7%)
	300000-1000000	1 (5.3%)	1 (5.3%)	5 (26.3%)	<b>9</b> <b>(47.4%)</b>	3 (15.8%)
	More than 1000000	1 (3.4%)	<b>11</b> <b>(37.9%)</b>	6 (20.7%)	9 (31%)	2 (6.9%)

Source: Survey data from the markets of Sagaing City

Cross-tabulation between current investment and types of goods trading is presented in Table (3.22).

According to these current investment levels and goods trading, the investments group (more than 1000000 Kyats) is the highest in rice trading (37.9%) and almost all of the rice traders need higher investment. Except meat & fish trading and beans & peas trading, all other groups: vegetables trades need at less than 100000 Kyats (regarding highest 60% in less than 50000 and 83% in 50000-100000 groups), in spices and ingredient, traders need investment between 100000 and 1000000 (regarding highest 53% in 100000-300000 and 47.4% in 300000-1000000 groups). Therefore, rice trading and spices and ingredient need much investment and vegetables traders need less investments.

**Table 3.23****Frequency and percent distribution of****Current Investment and Stock Levels before shock**

		Stock levels before shock			Total
		The Same Level	Provide more	Provide Less	
Current Investment	Less than 50000	2 (2.7%)	0	3 (4.1%)	5 (6.8%)
	50000-100000	4 (5.4%)	1 (1.4%)	1 (1.4%)	6 (8.1%)
	100000-300000	10 (13.5%)	2 (2.7%)	3 (4.1%)	15 (20.3%)
	300000-1000000	12 (16.2%)	2 (2.7%)	5 (6.8%)	19 (25.7%)
	More than 1000000	21 (28.4%)	3 (4.1%)	5 (6.8%)	29 (39.2%)
	Total	49 (66.2%)	8 (10.8%)	17 (23%)	74 (100%)

Source: Survey data from the markets of Sagaing City

Frequency and percent distribution of current investment and stock levels before shock are presented in Table (3.23).

According to current investment and keeping stock levels before shock, there are five groups in this analysis. The group who invests in less than 50000 Kyats participated 5 respondents (6.8%). The group who invests in (50000-100000) Kyats participated 6 respondents (8.1%). The group who invests in (100000-300000) Kyats participated 15 respondents (20.3%). The group who invests in (300000-1000000) Kyats participated 19 respondents (25.7%). The group who invests in more than 1000000 Kyats participated 29 respondents (39.2%) respectively. Among them (66.2%) of all respondents have kept the same stock level before shock, (10.8%) of respondents have kept more for provide customers, and (23%) of respondents have kept less for provide customers. These types of goods trading are selected for most households consumed in line with traders and consumers point of views.

**Table 3.24**  
**Cross-tabulation between Current Investment and Stock Levels before shock**

		Stock levels before shock		
		The Same Level	Provide more	Provide Less
Current Investment	Less than 50000	2 (40%)	0	3 (60%)
	50000-100000	4 (66.7%)	1 (16.7%)	1 (16.7%)
	100000-300000	10 (66.7%)	2 (13.3%)	3 (20%)
	300000-1000000	12 (63.2%)	2 (10.5%)	5 (26.3%)
	More than 1000000	21 (72.4%)	3 (10.3%)	5 (17.2%)

Source: Survey data from the markets of Sagaing City

According to these current investment levels and keeping stock, the investments group (more than 1000000 Kyats) is the highest in keeping the same stock level before shock (72.4%). Except the investments group (less than 50000 Kyats), all other groups keep the same stock level: the investments regarding (the highest 66.7% in 50000-100000 group and 100000-300000 group), and (the highest 63.2% in 300000-1000000 groups). Therefore, only investment less than Kyats 50000 cannot be kept stock more.

**Table 3.25**  
**Frequency and percent distribution of Current Investment Source of Purchase**

		Source of Purchase				Total
		Framers in Districts	Framers from other districts	Traders in Districts	Traders from other districts	
Current Investment	Less than 50000	0	0	3 (4.1%)	2 (2.7%)	5 (6.8%)
	50000-100000	0	1 (1.4%)	1 (1.4%)	4 (5.4%)	6 (8.1%)
	100000-300000	1 (1.4%)	0	0	14 (18.9%)	15 (20.3%)
	300000-1000000	2 (2.7%)	0	1 (1.4%)	16 (21.6%)	19 (25.7%)
	More than 1000000	2 (2.7%)	1 (1.4%)	7 (9.5%)	19 (25.7%)	29 (39.2%)
	Total	5 (6.8%)	2 (2.7%)	12 (16.2%)	55 (74.3%)	74 (100%)

Source: Survey data from the markets of Sagaing City

Frequency and percent distribution of current investment and sources of purchase are presented in Table (3.25).

As a result of current investment and sources of purchase, there are five groups in this analysis. The group who invests in less than 50000 Kyats participated 5 respondents (6.8%). The group who invests in (50000-100000) Kyats participated 6 respondents (8.1%). The group who invests in (100000-300000) Kyats participated 15 respondents (20.3%). The group who invests in (300000-1000000) Kyats participated 19 respondents (25.7%). The group who invests in more than 1000000 Kyats participated 29 respondents (39.2%) respectively. Among them (6.8%) of all respondents have bought the goods from farmers in districts, (2.7%) of all respondents have bought the goods from farmers of other districts, (16.2%) of all respondents have bought the goods from traders in districts, and (74.3%) of all respondents have bought the goods from traders of other districts.

**Table 3.26**  
**Cross-tabulation between current investment and sources of purchase**

		Source of Purchase			
		Frames in District	Frames from other districts	Traders in District	Traders from other districts
Current Investment	Less than 50000	0	0	3 (60%)	2 (40%)
	50000-100000	0	1 (16.7%)	1 (16.7%)	4 (66.7%)
	100000-300000	1 (6.7%)	0	0	14 (93.3%)
	300000-1000000	2 (10.5%)	0	1 (5.3%)	16 (84.2%)
	More than 1000000	2 (6.9%)	1 (3.4%)	7 (24.1%)	19 (65.5%)

Source: Survey data from the markets of Sagaing City

According to these current investment levels and sources of purchase, the investments group (100000-300000 Kyats) is the highest sources of purchases from traders of other districts (93.3%). Except the investments group (less than 50000 Kyats), all other groups purchased from traders of other districts: the investments regarding (the highest 66.7% in 50000-100000 group), (the highest 84.2% in 100000-300000 group),

and (the highest 65.5% in more than 1000000 groups. Hence, only investment less than Kyats 50000 group purchased from traders in district mostly.

Frequency and percent distribution of education level and types of trading are presented in Table (3.27).

**Table 3.27**

**Frequency and percent distribution of Education level and Types of Business**

		Types of Business		Total
		Retailing	Retail & Wholesales	
Education	Illiterate	2 (2.7%)	1 (1.4%)	3 (4.1%)
	Monastery Education (Baka)	3 (4.1%)	1 (1.4%)	4 (5.4%)
	Primary and Secondary	27 (36.5%)	12 (16.2%)	39 (52.7%)
	Higher education	8 (10.8%)	6 (8.1%)	14 (18.9%)
	Graduate	4 (5.4%)	10 (13.5%)	14 (18.9%)
	Total	44 (59.5%)	30 (40.5%)	74 (100%)

Source: Survey data from the markets of Sagaing City

By the education level and types of business, there are five groups in this analysis. The group involving illiterate persons participated 3 respondents (4.1%). The group involving persons who got monastery education (baka) participated 4 respondents (5.4%). The group involving persons who got primary and secondary education participated 39 respondents (52.7%). The group involving persons who got higher education participated 14 respondents (18.9%). The group involving persons who got graduate participated 14 respondents (18.9%) respectively. Among them (59.5%) of all respondents have done in retailing and (40.5%) of all respondents have done the business both retail and wholesale.

**Table 3.28**  
**Cross-tabulation between education and Types of Business**

		Types of Business	
		Retailing	Retail & Wholesales
Education	Illiterate	2 (66.7%)	1 (33.3%)
	Monastery Education (Baka)	3 (75%)	1 (25%)
	Primary and Secondary	27 (69.2%)	12 (30.8%)
	Higher education	8 (57.1%)	6 (42.9%)
	Graduate	4 (28.6%)	10 (71.4%)

Source: Survey data from the markets of Sagaing City

According to education level and types of business, the group involving persons who got monastery education is the highest investment in trading retailing (75.4.3%). Except the group involving persons who got graduate, all other groups invested in retailing: the investments regarding (the highest 66.7% in illiterate group), (the highest 69.2% in primary and secondary group), and (the highest 57.1% in higher education groups). So, only group involving persons who got graduate invested in both retail & wholesale mostly.

**Table 3.29**  
**Frequency and percent distribution of Education Types of Sales**

		Types of Sales		Total
		Credit Sales	No Credit Sales	
Education	Illiterate	3 (4.1%)	0	3 (4.1%)
	Monastery Education (Baka)	2 (2.7%)	2 (2.7%)	4 (5.4%)
	Primary and Secondary	25 (33.8%)	14 (18.9%)	39 (52.7%)
	Higher education	8 (10.8%)	6 (8.1%)	14 (18.9%)
	Graduate	10 (13.5%)	4 (5.4%)	14 (18.9%)
	Total	48 (64.9%)	26 (35.1%)	74 (100%)

Source: Survey data from the markets of Sagaing City

Frequency and percent distribution of education level and types of sales are presented in Table (3.29).

By the education level and types of business, there are five groups in this analysis. The group involving illiterate persons participated 3 respondents (4.1%). The group involving persons who got monastery education (baka) participated 4 respondents (5.4%). The group involving persons who got primary and secondary education participated 39 respondents (52.7%). The group involving persons who got higher education participated 14 respondents (18.9%). The group involving persons who got graduate participated 14 respondents (18.9%) respectively. Among them (64.9%) of all respondents have traded the goods in cash (no credit sales) and (35.1%) of all respondents have traded the goods on credit.

**Table 3.30**  
**Cross-tabulation between education level and types of sales**

		Types of Sales	
		Credit Sales	No Credit Sales
Education	Illiterate	3 (100%)	0
	Monastery Education (Baka)	2 (50%)	2 (50%)
	Primary and Secondary	25 (64.1%)	14 (35.9%)
	Higher education	8 (57.1%)	6 (42.9%)
	Graduate	10 (71.4%)	4 (28.6%)

Source: Survey data from the markets of Sagaing City

Cross-tabulation between education level and types of sales is presented in Table (3.30). According to education level and types of sales, the group involving illiterate persons is the highest in trading on credit sales absolutely (100%). Except the group involving persons who got monastery education, all other groups traded on credit sales: trading on credit sales regarding (greater 64.1% in primary group), (greater 57.1% in higher education group), and (greater 57.1% in higher education groups). So, only group involving persons who got monastery education made trading on credit and cash sales equally.



### 3.4 Goods Acquisition and Limitations Concerns

**Table 3.31**  
**Frequency and percent distribution of Source of Purchase Types of Business**

		Types of Business		Total
		Retailing	Retail & Wholesales	
Source of Purchase	Framers in Districts	3 (4.1%)	2 (2.7%)	5 (6.8%)
	Framers from other districts	1 (1.4%)	1 (1.4%)	2 (2.8%)
	Traders in Districts	6 (8.1%)	6 (8.1%)	12 (16.2%)
	Traders from other districts	34 (45.9%)	21 (28.4%)	55 (74.3%)
	Total	44 (59.5%)	30 (40.5%)	74 (100%)

Source: Survey data from the markets of Sagaing City

According to the sources of purchase and types of business, there are four groups in this analysis. The persons who purchased the goods from farmers in districts participated 5 respondents (6.8%). The persons who purchased the goods from farmers of other districts participated 2 respondents (2.8%). The persons who purchased the goods from traders in districts participated 12 respondents (16.2%). The persons who purchased the goods from traders of other districts participated 3 respondents (74.3%) respectively. Among them (59.5%) of all respondents have done in retailing and (40.5%) of all respondents have done the business both retail and wholesale.

**Table 3.32**  
**Cross-tabulation between sources of purchase and types of business**

		Types of Business	
		Retailing	Retail & Wholesales
Source of Purchase	Framers in Districts	3 (60%)	2 (40%)
	Framers from other districts	1 (50%)	1 (50%)
	Traders in Districts	6 (50%)	6 (50%)
	Traders from other districts	34 (61.8%)	21 (38.2%)

Source: Survey data from the markets of Sagaing City

Cross-tabulation between sources of purchase and types of business is presented in Table (3.32). According to sources of purchase and types of business, the group purchased goods from traders of other districts is greater in retailing (61.8%). Also, the group purchased goods from farmers in districts greater in retailing (60%). So, in retailing and retail & wholesale, both groups purchased goods from farmers of other districts (50%) and purchased goods from traders in districts (50%) equally.

Frequency and percent distribution of sources of purchase and types of sales are presented in Table (3.33).

**Table 3.33**  
**Frequency and percent distribution of Source of Purchase and Types of Sales**

		Types of Sales		Total
		Credit Sales	No Credit Sales	
Source of Purchase	Framers in Districts	4 (5.4%)	1 (1.4%)	5 (6.8%)
	Framers from other districts	1 (1.4%)	1 (1.4%)	2 (2.8%)
	Traders in Districts	8 (10.8%)	4 (5.4%)	12 (16.2%)
	Traders from other districts	35 (47.3%)	20 (27%)	55 (74.3%)
	Total	48 (64.9%)	26 (35.1%)	74 (100%)

Source: Survey data from the markets of Sagaing City

According to the sources of purchase and types of business, there are four groups in this analysis. The persons who purchased the goods from farmers in districts participated 5 respondents (6.8%). The persons who purchased the goods from farmers of other districts participated 2 respondents (2.8%). The persons who purchased the goods from traders in districts participated 12 respondents (16.2%). The persons who purchased the goods from traders of other districts participated 3 respondents (74.3%). Among them (64.9%) of all respondents have traded the goods in cash (no credit sales) and (35.1%) of all respondents have traded the goods on credit.

**Table 3.34****Cross-tabulation between sources of purchase and types of sales**

		Types of Sales	
		Credit Sales	No Credit Sales
Source of Purchase	Framers in Districts	4 (80%)	1 (20%)
	Framers from other districts	1 (50%)	1 (50%)
	Traders in Districts	8 (66.7%)	4 (33.3%)
	Traders from other districts	35 (63.6%)	20 (36.4%)

Source: Survey data from the markets of Sagaing City

According to sources of purchase and types of sales, the group purchased goods from traders of other districts is greater in credit sales (63.6%) (35 respondents). Also, the group purchased goods from farmers in districts greater in credit sales (80%) and the group purchased goods from traders in districts greater in credit sales (66.7%). So, in retailing and retail & wholesale, only group purchased goods from farmers of other districts equally.

**Table 3.35****Frequency and percent distribution of Goods turnover and Types of Business**

		Types of Business		Total
		Retailing	Retail & Wholesales	
Goods Acquisition and Limitation	Uncertainty	6 (8.1%)	5 (6.8%)	11 (14.9%)
	Daily	9 (12.2%)	6 (8.1%)	15 (20.3%)
	Within a Week	22 (29.7%)	13 (17.6%)	35 (47.3%)
	Within 2 Week	6 (8.1%)	4 (5.4%)	10 (13.5%)
	Over 1 month	1 (1.4%)	2 (2.7%)	3 (4.1%)
	Total	44 (59.5%)	30 (40.5%)	74 (100%)

Source: Survey data from the markets of Sagaing City

As a result of goods acquisition turnover and types of business, there are five groups in this analysis. The group who refills no regular period participated 11 respondents (14.9%). The group who refills the goods daily participated 15 respondents (20.3%). The group who refills the goods within a week regular participated 35 respondents (47.3%). The group who refills the goods within 2 weeks regular participated 10 respondents (13.5%). The group who refills the goods over 1 month regular participated 3 respondents (4.1%) respectively. Among them (59.5%) of all respondents have done in retailing and (40.5%) of all respondents have done the business both retail and wholesale.

Cross-tabulation between goods acquisition turnover and types of business is presented in Table (3.36).

**Table 3.36**

**Cross-tabulation between goods acquisition turnover and types of business**

		Types of Business	
		Retailing	Retail & Wholesales
Goods Acquisition and Limitation	Uncertainty	6 (54.5%)	5 (45.5%)
	Daily	9 (60%)	6 (40%)
	Within a Week	22 (62.9%)	13 (37.1%)
	Within 2 Week	6 (60%)	4 (40%)
	Over 1 month	1 (33.3%)	2 (66.7%)

Source: Survey data from the markets of Sagaing City

According to goods acquisition turnover and types of business, the group who refills the goods within a week regular is the highest turnover in trading retailing (62.9%). Except the group who refills the goods over 1 month regular, all other groups who refills the goods in retailing: turnover regarding (higher 54.5% in uncertainty group), (higher 60% in daily group), and (within 2 weeks groups).

## **Chapter IV**

### **Conclusion**

Based on observations and findings on trader behavior, market structure and price behavior, one can conclude that the surveyed markets are functioning. In addition, sufficient food is available on local markets, markets are physically accessible, prices follow a predictable seasonal pattern, markets are competitive and integrated, there are no major constraints to market functioning and trade and traders will be able to sufficiently respond to increase in effective demand on their storage capacities, supply sources, and access to credit.

#### **4.1 Findings and Results**

The results of the findings are presented in accordance with respective classification as below. According to age group, the middle age group (45-54 years) is the most participated (36.5% of all respondents) in the market. By gender, male persons have less participated (17.6 % of all respondents) in the market. For ethnic-wise distribution, except 5 respondents, all the rest are Burmese (93.2% of total). In education level, the persons who finished primary and secondary education are maximum, which is equal 39 (52.7% of total respondents). By religion, most respondents are Buddhists who are 69 and 93.2 % of total. In the classification of business experience, the majority of respondents have experience more than 3 years (93.2% of total respondents). 37 respondents (50% of total) have suffered falling in sales after shock. Time to recover sales after shock is at least 3 weeks. 77% (57 out of total 74 respondents) have purchased goods from other districts. Among all respondents, 62 respondents (83.8%) do not want to change the sources of purchase. As a result of goods turnover, almost 95% of all respondents acquired goods within 1 month. Based on keeping stock, 49 respondents (66.2%) made goods turnover regularly before and after shock. 48 of total respondents (64.9%) are trading on credit system. In estimation of future sales price, 47 respondents (63.5%) believed that no change will be occurred. Market price information can be gathered from both local traders and others sources. These price information are reliable nearly 80%. Price information do not affect on trading significantly.

## **4.2 Constraint**

- 1) 20.3 percent of surveyed traders said they currently have not enough storage space to meet a twofold increase in demand.
- 2) When traders were asked what the biggest constraint, they faced increasing sales, 53 percent responded that it was due to lack of demand and 61 percent said it was because of the high of competition in the market. This result was consistent across market types and food items.
- 3) 85 percent of traders responded that prices are determined by supply costs which indicate the prices in food markets in Sagaing are rarely fixed as individual traders do not have sufficient market power.
- 4) The seasonal crop calendar influences the price of the main staple rice significantly. The price of rice is highest immediately before the main wet season harvest which typically starts in November. The price drops when the main wet season harvest commences as rice supply increases, and gradually rises throughout the year.

## **4.3 Response to Improvement**

Additionally, the following results from the survey further confirm that traders in food markets in Sagaing can adequately respond to a significant increase in demand:

- 1) 64.9 percent of traders said they have the capacity to deliver if customer demand significantly increased; of the traders who said they have the capacity to deliver, 85.1 percent said they would be able to deliver within a week.
- 2) 64.9 percent of surveyed traders said they provide credit to customers and from their supplies.
- 3) Market performance in terms of price behavior shows that prices are stable and follow a regular seasonal pattern.
- 4) Food availability of the main staple rice is sufficient for local. Total paddy rice production in Sagaing has been steadily except flooding season but it is temporary.
- 5) The market assessment found that key food items (i.e. rice, meat, fish and vegetables) are available from traders and farmers of other districts year-round. Vegetables and fish are usually available.
- 6) 80 percent of surveyed traders indicated that they would be willing to participate in a voucher scheme in collaboration within a week.

#### **4.4 Recommendation**

In order to monitor food availability and traders and prices behavior, next market survey should have a better understanding of rice production forecasts and paddy rice border-trade. In order to continually inform market-based interventions in Sagaing with up-to-date information, this market assessment should be looked at together with the price and wage monitoring bulletin. The latter can also trigger new market assessments in case of significant changes to the indicators discussed in this report. Based on the above, implementing a cash and vouchers in the surveyed is appropriate from a market perspective. In developing countries, higher income results in increased demand for meat products, often leading to increased import of livestock feed. Consumer groups in developed countries have also brought attention to organic production of food and the topic of animal welfare.

## References

1. Lind.D.A, Marchal.W.G, and Wathen.S.A, *Basic Statistics for Business and Economics*; 7<sup>th</sup> edition, 2011, McGraw Hill Companies, Inc.
2. Than Toe and Thet Lwin, *Research Methodology: a practical guide for business and economics*, 1<sup>st</sup> edition, 2001, Myanmar Academy of Arts and Science, Yangon.
3. Haitham El. Noush, *Cambodia Food Market Analysis and Survey Report*, World Ford Programme Cambodia Country Office VAM Unit, 2010
4. Jayne.T.S and etal, *Patterns and Trends in Food Staples Markets in Eastern and South Africa: Toward the identification of priority investments and strategies for developing markets and promoting smallholder productivity growth*, 2009, Michigan State University.
5. Dominique. M.H and etal, *Market Response Models and Marketing Practice*, 2005, John Wiley & Sons, Ltd.
6. *Staple Food Value Chain Analysis*, Zambia
7. *Market Assessment and Baseline Study of Staple foods*, Uganda.
8. Raphael.B and Oyatoye.E, *Food Security and Marketing Problems in Nigeria: the case of Maize Marketing in Kwara State*, 2004.