Development of a Consumer Confidence Index for the Bangladesh Economy and Identification of Financial Risk Factors Affecting Consumer Confidence

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Abstract

This paper is oriented to analyze the consumer confidence level and development of a consumer confidence index. In light of data analyses it is evident that consumer confidence is low in Bangladesh measured according to both Conference Board Method and Tipp Indicator.Two methods have been used for analyzing consumer confidence, the Conference Board Method and TIPP Indicator Method. The primary findings of the research are that Bangladeshi residents are cautiously pessimistic about the current economy and slightly optimistic about the next six months, though, both indicators are in the lower region. They have also found to be optimistic about income growth and cautious in their assessment of future job opportunities.The principal risk factors that were identified by consumers are inadequacy and weakness in rules and regulations, lack of redress in case of financial losses, fraudulent activities, political risks, corruptions etc.

Key Words: Consumer, Index, TIPP, Confidence, Risk, Policy, Political, Governance, CCI, Economy

1.   Introduction

Among numerous economic performance indicators of a country, one of the more prominent measures that gauge behavioral trends is Consumer Confidence Index (CCI). The measurement of a CCI is more common in developed economies, although lately the index is being used in developing economies to establish a link between survey-based confidence indicators and real economic activity (Ludvigson, 2004). Apart from being an indicator of economic performance, the CCI has been seen to be highly correlated to real consumption. In fact, studies have shown that in some countries the CCI has short-term forecasting ability as well (Carroll et al., 1994). Fisher and Statman (2000) also found that there is statistically significant relationship between the sentiment of investors and subsequent stock returns.

Furthermore, research of investors has shown that investor confidence and attitudes manifest clear tendencies to change through time and strongly influence the behavior of markets (Srivastava, 2006). In fact, the rising field of behavioral finance specializes in taking explicit account of such psychological factors in understanding and predicting market conditions.

In light of the descriptive and predictive ability of investor and/or consumer sentiment and confidence, it is essential to develop such indices for a country like Bangladesh, in order to better comprehend economic and market conditions as well as predict future circumstances. However, there has been a significant lack of such an exercise in Bangladesh. This report attempts to fill that gap and encourage further work in the area.

The report is organized in the following manner. The first section involves a review of existing literature that concern consumer confidence measures and their usefulness in understanding the economy as well as predicting the short-term future course it may take. The literature review then discusses the risk factors identified with respect to determining the consumer confidence specifically in the Bangladesh financial market. The ensuing section outlines the methodologies employed in the report to develop a CCI for the Bangladesh economy and to identify the risk factors affecting the Bangladeshi investors' confidence. The findings of the study is elaborated in section following. Finally, conclusions based on the findings of the study, are presented to delineate the consumer confidence conditions and factors affecting those as manifest in the Bangladesh financial market.

2.   Literature review

A number of empirical studies, such as Fuhrer (1993), Carroll et al (1994), Bram & Ludvigson (1998), Nahius& Jansen (2004), have found that confidence measures improve short-term forecasting of consumption. Also, Pain & Weale (2001) estimate consumption functions with dynamics in income and net wealth and find a more significant role for confidence in both countries.

In financial markets, Otoo (1999) noted that high stock returns can lead to increases in consumer confidence for two reasons – i) high stock returns bring wealth, boosting consumer confidence, and ii) high stock returns are a leading indicator of high income since the stock market is a leading indicator of the economy.

Also, Fisher and Statman (2000) found that there is a statistically significantly relationship between S&P 500 Index returns and changes in consumer confidence. A statistically significant relationship between changes in consumer confidence and contemporaneous stock returns has also been established, where high stock returns boost consumer confidence (Fisher & Statman, 2002). Moreover, stock returns generally Granger-cause consumer confidence over very short horizons. This stock market-confidence relationship is driven mostly by expectations about economy-wide conditions (Nahuis & Jansen, 2002).

In spite of the overwhelming evidence of correlation, neither consumption effects nor stock market causes of consumer/ investor confidence has been studied in Bangladesh. However, risk factors that undermine consumer confidence in the financial services sector of Bangladesh have been discussed in a paper by Choudhury & Azad (2006). This report adopts two approaches to develop a CCI for the Bangladesh economy, which would serve as probable models for further association and causal studies.

The risk factors that affect investor confidence have been identified (Choudhury & Azad, 2006) as: i) Prudential risk, in which a financial entity collapses and consumers lose their deposits, ii) Misconduct risk, which arise from fraud, deliberate mis-selling or failure to disclose relevant information, iii) Complexity risk, where financial products and services are gradually

becoming complex, whose risks are difficult to gauge, iv) Performance risk, when investment may not deliver the expected return to the investor depending on market environment or the particular product, v) Default risk, the most important factor associated with problems of safety and soundness of financial sector, vi) Capital Inadequacy, and vii) Capital Flight.

This report unearths a few risk factors as directly identified by investors as influencing consumer confidence in the Bangladesh financial market.

3.   Methodology

The two most widely known surveys of consumer confidence are produced by the University of Michigan's Institute of Social Research, known as the University of Michigan Consumer Sentiment Index (UMCSI) and the US Conference Board's Consumer Confidence Index (CBCCI) – both recognized as the degree of optimism on the state of the economy that consumers are expressing. This report uses the Conference Board's calculation directly and applies to the outcome of the survey questionnaire. The other approach adopted uses the TIPP Indicator method, which is based on the same questionnaire, but applies a different calculation method to derive the Index.

Under both the approaches, the following types of questions have been asked:

1. Respondents' appraisal of current business conditions,

2. Respondents' expectations regarding business conditions six months hence,

3. Respondents' appraisal of the current employment conditions,

4. Respondents' expectations regarding employment conditions six months hence,

5. Respondents' expectations regarding their total family income six months hence.

In most simplistic terms, when consumer confidence is trending up, consumers spend money, indicating a healthy economy. When confidence is trending down, consumers are saving more than they are spending, indicating a troubled economy.

Survey participants were asked to answer each question as "Very Good" (Highly Positive), "Good" (Positive), "No Comment" (Neutral), "Bad" (Negative) or "very Bad" (Highly Negative). These responses were then numerated and calculations accordingly made to develop respective Indices.

3.1 Index Calculation

Conference Board Approach

Once the data had been gathered, a proportion known as the 'relative value' was calculated for each question separately. Each question's positive responses were divided by the sum of its positive and negative responses to arrive at individual index values. The index values for all five questions were then averaged together to form the Consumer Confidence Index.

TIPP Indicator

The following formula was used to calculate each question index component:

$$K = 50 + 0.5*\{p1(+) - p1(-)\} + 0.25*\{p2(+) - p2(-)\}$$

Where, $p1(+)$ is the percent which answered strongly positive, $p1(-)$ is the percent which answered strongly negative, $p2(+)$ is the percent answered positive, and $p2(-)$ is the percent answered negative. The question components were then averaged to calculate the Index.

Risk Factor Identification

Apart from the five Index questions, investors were asked to choose from among factors that they consider risky from a list of probable factors based on past studies conducted on consumer confidence in Bangladesh financial market. Multiple responses were allowed to identify all factors that investors consider as influencing the risk of investment in Bangladesh.

3.2   Sample Design

Primary data was collected from a sample size of 315 (three hundred and fifteen) where the sample frame consisted of consumers of financial products in Dhaka, collected on convenience sampling basis.

4.   Findings

4.1   Consumer Perceptions

The findings of the survey reflect the outlook of the consumers regarding the future prospects of the economy, job opportunities and family income, compared to the prevalent situation. The non-responses have been omitted from the findings presentation to depict the opinions expressed.

The respondents were found to be cautiously pessimistic about the current state of our economy, and more optimistic about the future compared to present condition. Figure 1 shows the results to the questions, "*How would you currently rate the economy of Bangladesh?*" and, "*In six months, how do you think the economy of Bangladesh will change?*"
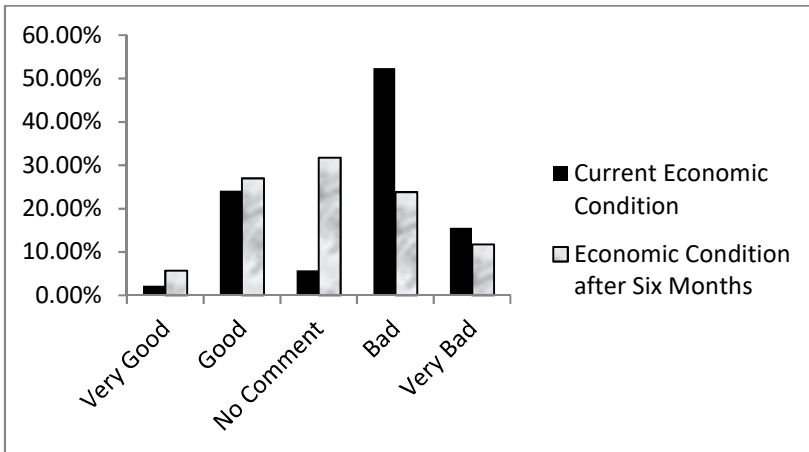
Figure 1: Perceptions Regarding the Current & Prospective States of the Economy

These figures suggest that respondents are pessimistic about the current state economy as they exist today; but they are slightly more optimistic about future growth in the economy.

An additional consideration important to consumer confidence is their outlook on job opportunities. Figure 2 shows the results to the question, *"How do you currently rate job opportunities in your work field in Bangladesh?"* and, *"In six months, how do you expect job opportunities in your work field to change in Bangladesh?"* respectively.
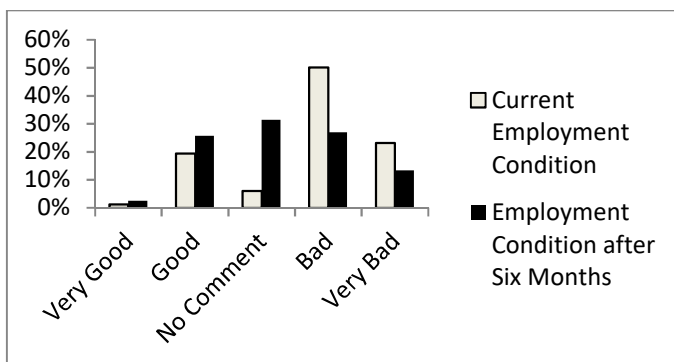

Figure 2: Perceptions Regarding the Current & Prospective Job Opportunities

Respondents are similarly cautiously optimistic about growth in job opportunities as with the economic condition. However, it is to be noted that although conditions in the economy as well as the job market, although expected to improve, are still perceived to remain somewhat negative, as depicted by the negative answers outweighing the positive expectations slightly.

The most interesting outcome come from the question, "*In six months, how do you expect your household's yearly income to change?*" as depicted in Figure 3.
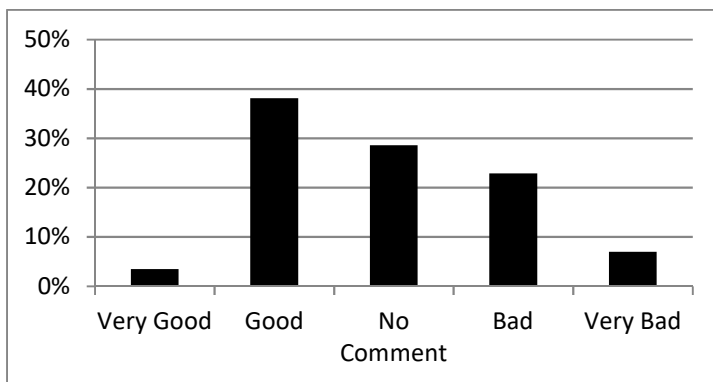
Figure 3: Perceptions Regarding Family Income after Six Months

The respondents are significantly optimistic about family income, although neither the economy nor job opportunities are expected to become overwhelmingly positive. There seems to be a positive relationship between respondents' expectation for income & job opportunities growth and their expectation for growth in the economy. However, the cause and effect relationship is not clear. It may be the case that believing the economy will grow creates an expectation that one's income will grow, which is borne out by the Granger-causality as borne out by earlier studies mentioned before.

A possible explanation of family incomes rise expectations may be a greater faith in own and family's ability rather than a result of economic or job market performance.

4.2   Consumer Indices

The following table depicts the survey data, which are used to construct the Indices.

Question Criteria		*Very Good*	*Good*	*No Cmnt.*	*Bad*	*Very Bad*
Current Economic Condition	Absolute	7	76	18	165	49
	Percentage	2.22	24.13	5.71	52.38	15.56
Current Employment Condition	Absolute	4	61	19	158	73
	Percentage	1.27	19.37	6.03	50.16	23.17
Economic Condition after Six Months	Absolute	18	85	100	75	37
	Percentage	5.71	26.98	31.75	23.81	11.75
Employment Condition after Six Months	Absolute	8	81	99	85	42
	Percentage	2.54	25.71	31.43	26.98	13.33
Family Income after Six Months	Absolute	11	120	90	72	22
	Percentage	3.49	38.10	28.57	22.86	6.98

Table 1: Survey Data

4.3   Conference Board Consumer Confidence Index

Individual Criteria	Results Using Conference Board Model
K1(Current Economic Condition)	27.95
K2(Current Employment Condition)	21.96
K3(Economic Condition after Six Months)	47.91
K4(Employment Condition after Six Months)	41.20
K5(Family Income after Six Months)	58.22
Consumer Confidence Index (Conference Board)	39.45
Present Situation Index	24.95
Expectation Index	49.11

Table 2: Results of Conference Board Index
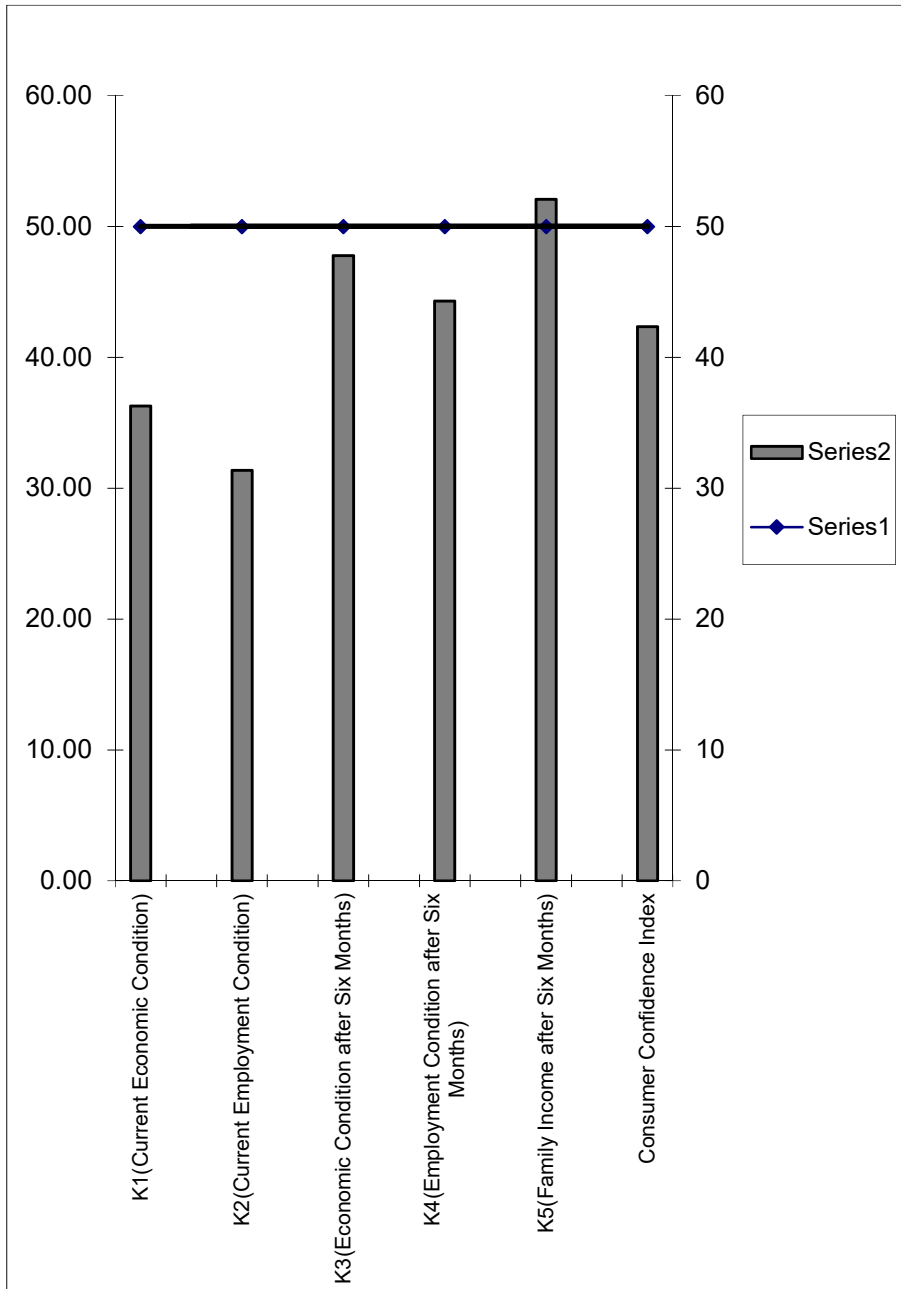
Figure 4: Conference Board Consumer Confidence Index

4.4   TIPP Indicator

$$K = 50 + 0.5*\{p1(+) - p1(-)\} + 0.25*\{p2(+) - p2(-)\}$$

Individual Criteria	Result Using TIPP Indicator Index
K1(Current Economic Condition)	36.27
K2(Current Employment Condition)	31.35
K3(Economic Condition after Six Months)	47.78
K4(Employment Condition after Six Months)	44.29
K5(Family Income after Six Months)	52.06
Consumer Confidence Index (TIPP Indicator)	42.35

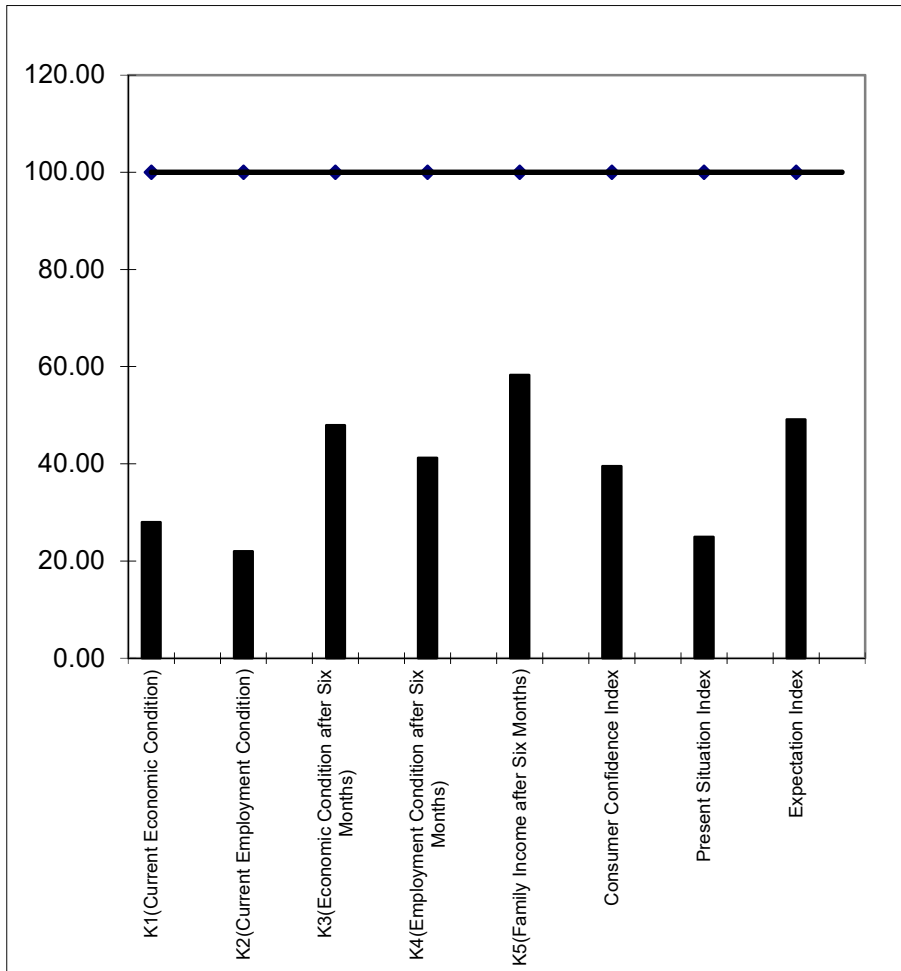**Table 3: Results of TIPP Indicators Index**

Figure 5: TIPP Indicator Consumer Confidence Index

5.   Interpretation

The calculated index using Conference Board method is 49.11, while using
the TIPP Indicator method is 42.35. Such low index numbers indicate that the
majority of consumers expect conditions to deteriorate. Put differently,
consumers are relatively pessimistic. However, their expectations in future
are rather optimistic. The reasons may be due to ongoing structural reform,
anti-corruption movement, establishment of better business forum, etc. The

reasons of negative views about Current situation are due to higher inflation, natural calamities, lower confidence in business environment etc.

Several risk factors that affect the consumers' confidence towards the financial markets are identified and a brief analysis of it done in later part of the report.

Low confidence in both indicators portrays that consumers are concerned about the future. They may be worried about job security, pay rises and economic condition. With such a frame of mind, consumers tend to cut spending to basic necessities (e.g. food and services) to free up income for future consumption. Spending on these items decline when confidence is low, as households can generally delay their purchase without experiencing a direct deterioration in living conditions.

5.1   Bangladesh Economy Context

The primary findings of the research are that Bangladeshi residents are cautiously pessimistic about the economy and less pessimistic about the next six months. They have also been found to be optimistic about income growth & cautious in the assessment of future job opportunities.

The overall improvement of the current and future economy is directly related to the confidence of consumers. If the consumer confidence and expectation are improved, then the flow of funds to the financial markets would certainly be increased and that would certainly improve the conditions of economy. So, it is very important for the financial institutions that consumer confidence in investing in the financial markets be increased.

A change in consumer confidence can be attributed to various reasons. These include, but are not limited to, consumers' expectations regarding the economic performance, their own financial position and the rating of the present time to buy durables changed respectively. Another is external developments, such as volatility in share prices, unexpected price surges of important consumer goods (e.g. food and fuel), political developments or big changes in economic policy.

5.2   Analysis of Risk Factors

The consumer confidence level is directly related to different risk factors in the financial market. There are many risk factors that reduce the consumer confidence level in financial sector of Bangladesh. In the report, the intensity of a risk factor is measured by the number of responses by consumers deeming that factor important. Depending on this method of analyzing intensity the main risk factors are discussed in the following sections in decreasing order of their intensity.

| Risk Factors	Number of respondents
Weakness in Law	190
Lack of Redress in Case of Financial Loss	146
Lack of Skills of the Financial Institutions	113
Fraudulent Activities of Financial Institutions	95
Risk due to complexity of Financial Instruments	70
Political Risk	50
Risk of Bankruptcy of Financial Institutions	44
Inflation	27
Unstable Economy	14
Corruption	13
Others	11

Table 4: Risk factors
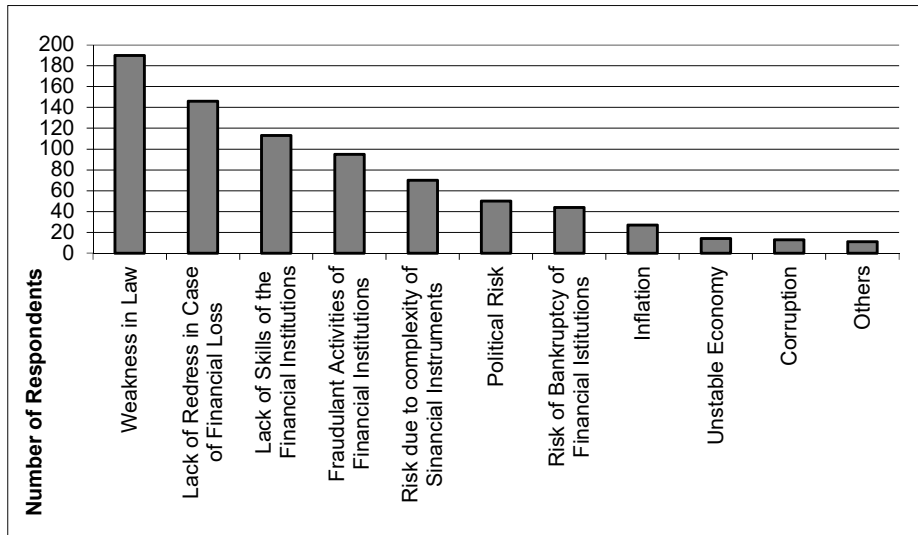
Figure 6: Risk Factors Affecting Consumer Confidence

Inadequacy and Weakness in Rules and Regulations

This is the risk factor that arises due to the inadequacy of law, loopholes of current rules and regulations and the complexity and time lag required for the legal proceedings. This was considered to be the most important risk factor. This factor, reflecting insecurity of legal procedures, has a direct, inverse impact on consumer confidence.

Lack of Redress in Case of Financial Loss

This is another significant risk factor for consumers in the financial markets in Bangladesh. After the share market scam in 1996, in recent years the fall of Oriental Bank, and the oscillating nature of the capital market, combined with the lack of recourse and redress, have made this risk a very significant one for local financial markets. Though there are some legal options for redress, the complex procedures for redress and the loopholes in rules make the risk factor significant in terms of consumer confidence.

Lack of Skill of the Financial Institutions

The perception that financial institutions do not have the skills to produce the highest return of their investment is based on the fact that consumers get little real rate of return. One of the major reasons behind the low rates of return are the non-performing assets in the financial system in Bangladesh, which weighs down the potential return on investment.

Fraudulent Activities of Financial Institutions

In recent time, the incidence of Oriental Bank, the fluctuations in the capital market and the 1996 share market scam have created significant doubt about the integrity of the financial institutions on the minds of the consumers of financial markets. The institutions are failing to comply by their fiduciary responsibilities, creating a lack of confidence among consumers.

Complexity of Financial Instruments

In course of time, financial instruments have become more and more complex. At the consumer level of Bangladesh, most people have very little knowledge about these new instruments. As long as the perception is not clear about these financial instruments, it would be very difficult to build a positive perception about these financial instruments.

Political Risk

For the past decade, the lack of political stability in Bangladesh has become very common. This generic type of risk can also be considered as the source of some other risks, namely fluctuations in financial markets.

Probability of Bankruptcy of Financial Institutions

Though not very common in Bangladesh, the probability of bankruptcy is also considered as a significant risk factor by the consumers of financial markets. The recent fall of Oriental Bank an the extensive media coverage are the main reasons for such fears. The consequence of this risk is that, consumers are becoming reluctant to invest with emerging financial institutions. As a result, emerging institutions have to offer higher rate of return to their consumers, which increases their cost of capital.

Inflation

Over the past few years, the high rate of inflation has become one of the major concerns for consumers. This has a twofold consequence. Firstly, consumers are becoming more oriented to consume than to save and invest, as the purchasing power of their savings are reducing rapidly. Secondly, the real rate of return is becoming too low and this discourages consumers to invest in the financial institutions.

Unstable economy

The higher rates of inflation, the volatility of financial markets etc. are all consequences of an unstable economy. Though these specific factors compose significant risks in financial markets, some respondents also mentioned the generic risk of unstable economy as a risk factor.

Corruption

In Bangladesh, corruption has been always a concerning matter in almost all sectors. This is also true for the financial sector. Though financial institutions are still far behind being flooded by corruption, it can be considered as a generic fear in the mind of local consumers.

Others

Apart from the risk factors mentioned above, few respondents mentioned some additional factors as risks for financial markets. The principal points mentioned by consumers are syndication of businessmen, bureaucratic complexity of government sectors, natural disasters etc.

6. Conclusion

In light of data analyses it is evident that consumer confidence is low in Bangladesh measured according to both Conference Board Method and Tipp Indicator. With the development of two Consumer Confidence Indices for Bangladesh, the extension of the work would be in trying to construct predictive models of economic performance (in terms of consumption, stock returns etc.) using the Index as a model parameter.

Consumer Confidence Index is considered to be a very important indicator, requisite for financial decisions and policy-making in terms of drafting future course of actions. In Bangladesh, if such approaches are adopted, better macroeconomic policies and investment decisions may be feasible. However, the validity of the Indices needs to be tested based on developed econometric models.

Also, the identified risk factors, influencing consumer confidence, need to be addressed by policymakers as well as financial market participants so as to ensure efficient functioning of these markets. The factor identification would help design policies to attend to the problem of lack of consumer confidence in Bangladesh.

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