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**BEHAVIORAL FINANCE DURING FINANCIAL CRISIS  
IN A BANKING COMPANY**

Case: Panchashil Multi-Purpose Co-operative Limited



Bachelor's thesis

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ABSTRACT

Panchashil Multi-Purpose Co-Operative Limited, a banking company of Nepal, commissioned this study. After the end of civil war in Nepal, which lasted for ten years, there was a situation of financial crisis. This situation was not brought by any economic changes in the country but because of the bias behaviour of people.

The main purpose of this thesis is to use behavioral finance as a tool and suggest the commissioning company a way to overcome the situation caused by an irrational decision-making behaviour of the investors or the company's customers.

There are many models, theories and hypotheses of behavioral finance defined by prominent researchers. Different researchers have studied human behaviour and human decision-making criteria and tried to explain these under different supporting models of behaviour finance. Many of such models, theories and hypotheses are used in this study.

As a part of the research method, an interview with the management committee of the company was arranged. There were also some questionnaires sent to the customers of the company.

Based on the interviews and surveys, it can be said that the behaviour of the investors is not rational. Thus, there is a need for proper study of the investors in the company and a customer satisfaction assessment should be done. Not only that, the investors /customers should be updated with the information on the company's changed policy or schemes or any other news that is relevant.

**Keywords** behaviour, finance, cognitive, bias, psychology

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## 1 INTRODUCTION

### 1.1 Background

After the end of civil war in 2006, the political situation got worse in Nepal. The civil war lasted for ten years. It started in 1996 and ended in 2006. The country's financial budget plan, which was supposed to be announced every year, could not be announced for two successive years because of the political situation. Living conditions and employment opportunities deteriorated for the civilians. This resulted in a high degree of emigration from the country when people were in search of better employment opportunities. The Ministry of Labour then, announced that the number of people emigrating from Nepal had reached a peak level. Every day 1000 people were emigrating in search of jobs.

One of the major sources of income for the country is foreign remittance. But at the same time, the whole world had been shaken by an economic crisis. The crisis did not affect the economy of Nepal directly but one of the major sources of income of the country, i.e. remittance got low. Because of this, banks in Nepal had to go through a critical period where they did not have enough fund to carry out day-to-day operations. People had to inform their bank three days prior for withdrawing over a hundred thousand rupees (which is approximately equal to one thousand euros) from their own account. Even if the account holder informed the bank three days in advance, the banks may have had difficulties finding and arranging the sum. The bank may have had to ask for a loan from another bank. At this critical point, the inter-banking loan percentage started getting higher. At one point it reached as high as 14 per cent.

NRB (Nepal Rastra Bank) ignored the unhealthy competition and governance in the financial sector. Taking advantage of the situation, a number of banking and financial institutions (BFIs) came into existence and the NRB let them pop up without even evaluating if the economy needed so many of them.

This created a negative impact on people's minds. People were not able to make any rational decisions regarding investments. A fear was born in people's minds. They were afraid to invest. Though the situation is not the same now, people still put too much weight on their past experiences. People still think that it is not a good idea to invest their savings into the bank but rather into immovable properties such as gold, silver, land etc. This caused the economy to become immobilized and immobilization of the economy raised the crisis level.

### 1.2 Case company

Panchashil Multi-Purpose Co-operative Limited commissioned the study. The company was established in 2006 under the cooperative Act 2048 (regd. no. 43/056/057) by the authority of Nepal Government through the initiative of different experienced people in related fields. The head office of PMCL (Figure 1) is situated in Kumaripati-5, Lalitpur, Nepal. Kumaripati is an industrial place situated in Lalitpur, which is the heart of the capital city, i.e. Kathmandu.

PMCL is a small banking company, which collects the money from the public with an attractive interest rate and utilizes this to raise the living standard of farmers, labourers and unemployed low-income people as well as the industrialists of the country who are not able to extend their business because of financial problems. This means that PMCL supports the public financially and invests into different skill-oriented, cash-oriented, product-oriented and income generating skills to make farmers, labourers and unemployed low-income people capable, independent and successful.



Figure 1 Panchashil Multi-Purpose Co-operative Limited

#### 1.2.1 Employees

PMCL has 20 employees in different operational fields. One of the major fields of operation is marketing, where there is a bit more employees than other fields. Communication and networking skills are highly valued with these employees. The main reason for this is that the customers of the company need to be convinced about the benefits of different types of accounts, for example tax-saving accounts, high income management, loans etc. The employees are required to deal with customers on a daily, weekly or monthly basis depending upon the type of saving or credit the customer wants to deal with. Marketing employees, in most cases, are required to give door-to-door service to the customers.

### 1.2.2 Management committee

The management committee of PMCL consists of three different categories: the advisor committee, the executive committee and the financial committee. The advisor committee consists of four members, the executive committee consists of seven members, including the chairman, Mr. Raju Khatiwada. The financial committee consists of three members. So, altogether there are 14 members in the management committee of PMCL.

### 1.2.3 Target customers

The target customers of PMCL are individuals with medium income and small and medium sized organizations located in the Kumaripati area. The company has another sector, which deals with remittance. So, the target customers are also those whose source of income is remittance. Although PMCL's main focus is in the Kumaripati area, they also deal with clients from other parts of Kathmandu city such as Lagankhel, Baneshwor, and Putalisadak etc.

### 1.2.4 Product range

PMCL has nine different kinds of deposit accounts, which are described in brief below:

- Recurring deposit

In recurring deposit, an account of amount is deposited for certain period of time. It doesn't allow withdrawing the money before the maturity period. The rate of interest varies according to the duration of the time and the amount too. (PMCL website, [http://www.panchashilmcl.com.np/recurring\\_deposit.htm](http://www.panchashilmcl.com.np/recurring_deposit.htm))

- Saving deposit

A minimum balance of Rs.1000.00 is required for saving deposit, which pays an interest of 8.00% quarterly. (PMCL website, [http://www.panchashilmcl.com.np/saving\\_deposit.htm](http://www.panchashilmcl.com.np/saving_deposit.htm))

- Fixed deposit

PMCL provides Fixed Deposit service. It means an account of amount deposited for certain period of time. It refers to the deposit of fixed amount, fixed interest rate, fixed term and fixed payee. PMCL doesn't allow withdrawing the money before the maturity period. The rate of interest varies according to the duration of the time and the amount too. (PMCL website, [http://www.panchashilmcl.com.np/fixed\\_deposit.htm](http://www.panchashilmcl.com.np/fixed_deposit.htm))

- Bal/Khutruke deposit

This type of deposit scheme is specially targeted to the child below 16 years. Thinking the future of children, PMCL encourages all the children to have a good habit of saving money from their very early age. This scheme is helpful to the parents who are financially worried about their children's study. PMCL supports to decrease the tension of such par-

ents and provides khutruke freely to those children who are not able to save money daily on their account. It is free to open this account i.e., no charges to open this account. As in recurring deposit, amount is deposited for certain period of time and additional interest of 0.50% on recurring deposit is paid as mentioned above. (PMCL website, [http://www.panchashilmcl.com.np/bal\\_khutruke\\_deposit.htm](http://www.panchashilmcl.com.np/bal_khutruke_deposit.htm))

- Grihini deposit

This scheme is suitable for women over 40 years who are interested to save money for their future reference. If this account holder needs any type of loan in future, then she gains 0.50% discount on company's interest charge and service charge but to gain this facility, account must hold minimum balance of Rs. 75000.00 or over. No charge to open this account but must have minimum balance of Rs. 1500.00 that gets 8.25% interest monthly. (PMCL website, [http://www.panchashilmcl.com.np/grihini\\_deposit.htm](http://www.panchashilmcl.com.np/grihini_deposit.htm))

- Jestha Nagarik deposit

This type of deposit is target to the older citizen above 60 years or retired pension holders who are in seek of secured investment and advantageous benefit. This saving scheme can provide regular benefit on the minimum balance of Rs. 50000.00 or above. Monthly Rs. 1208.00 interest is provided per Rs. 100000.00 to the multiple of Rs. 50000.00, plus 0.50% extra interest is provided to the same amount on the auspicious occasion of Dashain. The maturity period of this type of deposit is minimum 1 year to 5 years. (PMCL website, [http://www.panchashilmcl.com.np/jestha\\_nagarik\\_deposit.htm](http://www.panchashilmcl.com.np/jestha_nagarik_deposit.htm))

- Remittance deposit

PMCL provides the remittance service to our customers and this type of saving scheme is targeted to those people who are abroad, far from their family and country. It is free to open this account. The money sent from any part of the world by the reliable medium of the Western Union Money Transfer and Prabhu Money Transfer or any other sources is deposited on this account safely and money is easily provided to the account holder's door if necessary. PMCL plans to reward yearly to three account holders for their best money transactions on yearly sadharan sava. Account holders are categorized as first, second and third and are rewarded by token of love and certificates. (PMCL website, [http://www.panchashilmcl.com.np/remittance\\_deposit.htm](http://www.panchashilmcl.com.np/remittance_deposit.htm))

- Share deposit

PMCL provides the share deposit at 11.50% interest rate. (PMCL website, [http://www.panchashilmcl.com.np/share\\_deposit.htm](http://www.panchashilmcl.com.np/share_deposit.htm))

- Panchashil Special deposit

A minimum balance of Rs. 2000.00/- to Rs. 1,00,000/- is required for Panchashil Special Deposit, which pays daily interest at 11.00% to 13.00% to the customers and firms related to PMCL. (PMCL website, [http://www.panchashilmcl.com.np/panchashil\\_special\\_deposit.htm](http://www.panchashilmcl.com.np/panchashil_special_deposit.htm))

### 1.3 Research question

The final outcome of this thesis is through different models, theories and hypotheses written on behavioral finance recommend to the commissioning company the best way to overcome the financial crisis created by irrational decision-making behaviour of the investors or the customers. Thus the research question is:

How does behavioral finance help to overcome a situation of financial crisis in a banking company caused by cognitive biased behaviour of people?

### 1.4 Purpose

The main purpose of this thesis is to use behavioral finance as a tool and suggest the commissioning company a way to overcome a situation caused by the irrational decision-making behaviour of the investors or the company's customers.

In order to reach the above-mentioned outcome it is necessary to conduct a market analysis. Using the tools and methods that the author has learnt during his studies market analysis will be conducted.

An additional purpose of this thesis is to suggest methods of risk management to the commissioning company.

### 1.5 Methods

The research includes both qualitative and quantitative methods.

As part of qualitative research method in this project, an interview with the management committee of the company was arranged. There were some questionnaires sent to the customers of the company. The questionnaires focused on figuring out the decision-making grounds of the customers based on the seven sins of behavioral critique, which are described below.

As to the quantitative research method used here a survey was conducted with the Ministry of Finance of Nepal and also with Nepal Rastra Bank (NRB). In addition to these methods, related articles published by verified sources, for example newspapers and economists were used as secondary research data.

## 2 THEORITICAL FRAMEWORK

### 2.1 Definition

Behavioral finance is defined as an era of finance that considers the behaviours and psychology of investors outside traditional economic and financial theory. In traditional economic and financial theories either psychology of investors is considered rational or the market is considered to be efficient. Behavioral finance, however, covers two main areas, i.e. cognitive psychology and market efficiency. (Ritter 2003, 2.)

Cognitive psychology refers to the way people think. Behavioral finance argues that decision making of an individual is not always rational. Decision-making of an individual can be changed according to his thought. Sometimes people might take an instant decision without even thinking of anything because of their past experience, sometimes they might be overconfident and sometimes people might just use the knowledge they have gained in order to make a proper decision. It is not certain that the decisions taken on all those circumstances always prove to be the right ones. Whatever the case might be, one thing that can be concluded from this behaviour of individuals is that people are highly influenced by their thought regardless of whether the thought is positive or negative and also regardless of whether the result produced by that thought is positive or negative. Because people always, in such situations, tend to believe that the decision so made, brings a positive output. (Ritter 2003, 2.)

Unlike traditional financial theories, behavioral finance argues that market is not always efficient. Modern finance theories consist of a building block called EMH or Efficient Markets Hypothesis. The EMH argues that forecast of the future made by markets is unbiased. In contrast to this, behavioral finance argues that the financial markets are not always efficient. Markets can easily be affected by predictable human errors and the way their information is processed. (Ritter 2003, 2.)

To help us understand better on how people react to different situations and what affects the rational thinking of an individual, behavioral finance deals with different models.

There are many models, theories and hypotheses of behavioral finance explained by many prominent researchers. Different researchers have studied human behaviour and their decision-making criteria and tried to explain them under different supporting models of behaviour finance. A few of those are explained in brief in this thesis. But before that getting familiarized with the banking legislation of Nepal is necessary.

## 2.2 Banking legislation of Nepal

Nepal Rastra Bank is the central bank of Nepal. It supervises the banking and financial system of Nepal and maintains stability and foster amongst the banking and financial bodies for their healthy competition.

Nepal Rastra Bank has classified banks and financial institutions into four different categories according to the paid-up capital. The four categories are, category A, B, C and D. There are certain dos and don'ts for carrying out financial transactions by banks and financial institutions of all the categories. According to this classification, PMCL (the case company) falls on "D" category.

### 2.2.1 The dos

According to Nepal Rastra Bank, a class "D" licenced financial institution may carry on the following transactions:

- a) Supplying credit as prescribed;
- b) Supplying micro-credit with or without any movable or immovable property as the collateral or security, for operating any micro-enterprise to any group or members thereof who have regularly saved for the period prescribed by the Rastra Bank and maintained the prescribed saving;
- c) Obtaining loans or grants from any licensed institution or native or foreign organization, and use such loans or grants for the supply of micro-credit or for making the same effective;  
Provided that approval of the Rastra Bank shall be obtained prior to obtaining loans or grants from any foreign organization.
- d) Prior to supplying micro-credits, evaluating the schemes for which micro-credits have been requested and determining whether they are feasible;
- e) Engaging in micro-enterprises of such type as may improve the economic condition of low-income persons;
- f) Holding symposia on micro-enterprises, providing assistance and training in the formulation of schemes, providing technical know-how and mobilizing technical assistance, as required;
- g) Providing necessary services to a group in respect of the mobilization of micro-credit;
- h) Taking necessary action towards the timely realization of micro-credits;
- i) Monitoring whether micro-credits have been properly utilized, and, if they are found not to have been properly utilized, issuing necessary directives;
- j) Subject to the limit prescribed by the Rastra Bank, accepting deposits with or without interest, and refund such deposits;
- k) Obtaining credits by pledging its movable and immovable assets as collateral, and properly managing the assets;
- l) Writing off credits, subject to the bye-laws framed by the Board;
- m) Exchanging with the Rastra Bank or any other licensed institutions particulars of, information or notices on debtors or customers who

- have obtained credit or any kind of facility from it and other licensed institutions;
- n) Performing such other functions as may be prescribed by the Rastra Bank.
- (Banks and Financial Institutions Act, 2063-2006, Section 47)

### 2.2.2 The don'ts

The activities prohibited for being carried out by a licensed institution:

- a) Purchasing or selling goods for commercial purpose, or purchasing any immovable property except when it is required for its own use; Provided that this Clause shall not be deemed to prevent the licensed institutions of Classes "B" and "D" from purchasing, selling, distributing and managing lands and buildings in connection with carrying on their business transactions subject to Section 47.
  - b) Advancing credit against the security of its own shares;
  - c) Supplying credit or facility to any promoters, directors, persons who have subscribed one per cent or more of its shares, chief executive or any family member of such persons or to any firms, companies or institutions which are entitled to nominate or appoint directors;
  - d) Supplying any type of credit or facility to any promoters, directors, persons who have subscribed one per cent or more of its shares, chief executive or any family member of such persons or managing agent or any firms, companies or institutions which are entitled to nominate or appoint directors or any firms, companies or institutions in which the institution has a financial interest;
  - e) Supplying credit or facility in an amount exceeding such percentage of its capital fund as may be prescribed by the Rastra Bank to a single customer, company and companies or partnership firms of a single group;  
Explanation: The expression "companies or partnership firms of a single group" means a group of such companies or partnership firms as may be prescribed by the Rastra Bank from time to time.
  - f) Supplying any type of credit to any person, firm, company or institution against the guarantee given by the promoters, directors or chief executive;
  - g) Making investment in the securities of those licensed institutions which have obtained permission from the Rastra Bank to carry on the financial transactions of Classes "A", "B" and "C";
  - h) Making investment of an amount exceeding the limit prescribed by the Rastra Bank in the share capital of any other institution;
  - i) Indulging with other licensed institutions to mutually create any type of monopoly or any other type of controlled practice in the financial transactions;
  - j) Doing any kind of act which is capable of creating an artificial obstruction in the competitive environment of the financial sector, with the intention of deriving undue advantage;
  - k) Doing such other acts prohibited from being done by a licensed institution as may be prescribed by the Rastra Bank.
- (Banks and Financial Institutions Act 2063-2006, Section 48.)

### 2.3 Faulty framing

People tend to reach a conclusion based on a framing that is created in their mind in a given situation. For example if people were told that they have 50 per cent chance of winning a lottery tonight, then they most probably would buy the lottery ticket. But if the same thing were told in a different way, then it would plant a completely different idea in their mind. For example, if they were told that if they would buy a lottery ticket tonight, then it is 50 per cent sure that they would lose their money on the lottery ticket.

This also applies to the investors who buy stocks in the stock market. While buying the stocks, they create a pyramid of their thoughts. They open a mental account where they continue to mark their stock value to the same price, as it was when they first bought it even after the market price has changed. They do not care about the losses they see in the papers because mentally they still are calculating that the price has remained unchanged or probably risen. This hope only dies then, when they have to sell their stocks. Only at this point, they realize that the share value has dropped and they have had a huge loss. According to economist Richard Thaler, mental accounting is an economic concept, which explains that individuals divide their current and future assets into separate, non-transferrable portions. This means that people make all the calculations and transactions in their minds and follow accordingly while making financial decisions.

### 2.4 Hindsight bias

Hindsight bias refers to a bias feeling on people where they put too much weight on their past experience. People tend to believe that they already knew what would have happened in the past. It is a tendency where after an event has occurred, people tend to think that they could forecast the result of that event earlier on.

In case of investors, hindsight bias misleads them that they could have seen the losing stocks beforehand and they could have avoided buying such stocks. This leads them into a feeling of regret. The realization of such losses is painful to investors. The investors could only feel happier if by any means, they had avoided buying losing stocks.

If we take an example of two people who had forecasted the future of a winning and a losing stock respectively, then the one who had forecasted the winning stock says quite obviously that the result was so predictable and that he didn't have any difficulty predicting that there would be a gain in that stock. But if you ask the one who had forecasted the losing stock, he says with regret that deep inside he had known that the stock he forecasted was a losing one. They try to view this world as more predictable than it really is. This biased behaviour of people is known as hindsight bias.

## 2.5 Prospect theory

Daniel Kahneman and Amos Tversky developed prospect theory in 1979. Prospect theory is based on loss aversion.

Loss aversion means that people are more sensitive towards loss than gain. A gain of 10€ makes people happy but the level of happiness is less if we compare it to a level of sadness or pain because of a loss of 10€ faced by the same person. This was a simple example comparing the gain and loss of 10€. We can explain this example with a different approach as well. If a person loses 5€ and then gains 15€, then he feels happy because his net gain is 10€, but he would have felt happier if he had just gained 10€ without any loss. This is simple human behaviour.

It is a known fact that people hold on losing shares for longer time and sell off the winning shares. The way we think is that, we are in a profit level and are making money with these shares so let's sell them right away, so that we can have some profit in our hand. But with the losing share, people tend to believe that someday the price of the share will rise up and that would be the right time to sell those shares and now while we are still losing, it is not the right time to sell them. (Bernéus, Sandberg and Wahlbeck 2008, 10.)

The magnitude of loss aversion can be represented graphically.

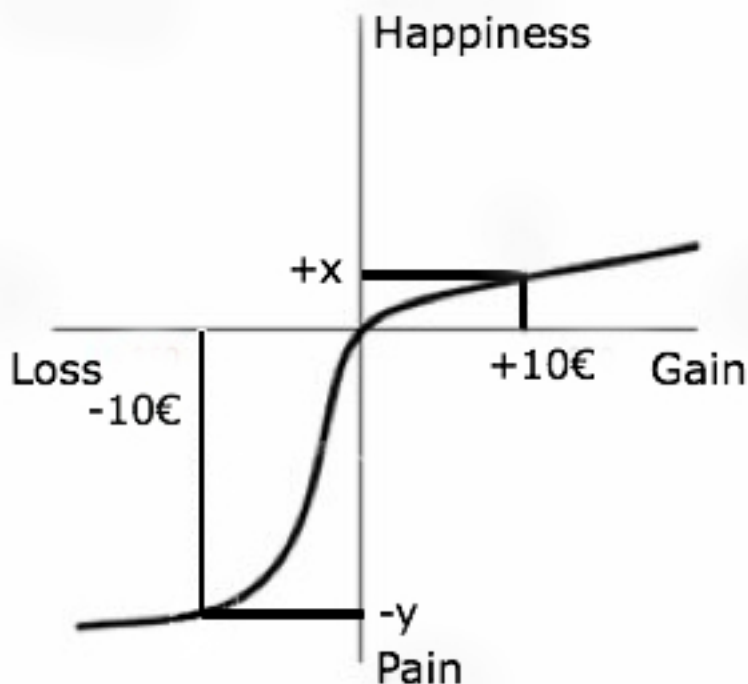


Figure 2 Loss aversion diagram, Adopted from Investopedia, 2008

In the figure above, if loss and gain are plotted in x-axis, and pain and happiness in y-axis, then the amount of happiness provided by a gain of 10€ is +x while the pain given by a loss of 10€ is -y. Even from the graph, it can be seen that y is far greater than x, i.e.  $y > x$ . Some researches even

argue that the pain of losing something is double than the joy of gaining something of equivalent value, i.e.  $y=2x$ .

### 2.6 Gambler's fallacy

If there is an expected result for something but the actual result keeps deviating from that expected result for a repeated number of times in some random process, then people start believing that the future deviation would be in the opposite direction. This belief in terms of behavioral finance is known as gambler's fallacy. (Bernéus, Sandberg and Wahlbeck 2008, 10.)

Let's illustrate this using an example. Let us suppose that there are two balls placed in a container. One of the balls is red in colour and the other one is blue. Now, a ball is drawn out of the container without looking at it in a random order. Let us assume that the ball so drawn happened to be the red one. After five continuous trial of drawing out a ball in random order, if it happens to be the red one all those five times, then what would a person start thinking? Through many researches and collected data, researchers have concluded that a normal person would think that in next draw, the outcome is more probable to be the blue ball, which is not true. Because the probability of next ball drawn out to be the blue ball is still half. Meaning that there still is 50 per cent chance that the next ball drawn out is the red one.

Daniel Kahneman and Amos Tversky first proposed gambler's fallacy as a cognitive bias produced by psychological thinking. According to them, people tend to evaluate the probability of a certain event by looking at the surrounding events or by accessing what has happened in the past.

### 2.7 Herding/crowd

Most of the people have a tendency to believe that if same decision is made by a large number of people, then it cannot be wrong. Herding behaviour is to copy other's behaviour or to copy the decision made by other and avoid one's own thinking or decision-making capacity.

This can be very well illustrated by an example. Most of us, at some point, have been in a situation where we go to a movie theatre to watch a movie but we don't know which one to watch. Let us imagine a group of 50 people facing the same dilemma. There are two movies, X and Y, having the same show time and in the same theatre. The movie review says that the movie X is 51 per cent preferable whereas the movie Y is 49 per cent. If all those 50 people reach to the movie theatre in a sequence, then what they do is, observe the choice made by the person in front of them. Though they know the prior probabilities of the movies, they tend to be influenced by the decision made by the person in front of them. For example, out of those 50 people, 48 people had a mind set that most probably they would watch the movie Y, but if the remaining 2 people get to choose the movie at first, then all 48 are influence by their decision. If those 2 people choose the movie X, then the person going after them will start

thinking that the 2 people in front of him had a signal that favoured the movie X, while his own signal was in favour of the movie Y. Because of this, the person behind him gets the same vibes as he did and chooses the movie Y as well. This makes the movie Y better than movie X. Had that 3<sup>rd</sup> person followed his own signal and chosen movie X instead of movie Y, then most of the people would have followed him and watched movie X since it was more preferable than the movie Y. But people have a tendency of following the crowd no matter wherever it is heading to.

Thus herding behaviour means a large number of people acting in the same way just because the person in front of them acted it that way. But this does not apply in the obvious reasons. For example, if someone in the above example believes or has a belief from a known source that movie X is better than movie Y; he definitely goes for the movie X. This herding behaviour implies only then, when people are not in an easy phase of decision-making and a little effort is enough to influence their decision.

### 2.8 Confirmation bias

Confirmation bias is a behavioral bias in decision-making process where one tries to imply his existing belief about something while making a decision. If something deviates from the existing belief of an individual, then the individual is more likely to seek for an option where he sees something that confirms his existing belief. People with confirmation bias try to avoid the information, which contradicts with the existing information that they have (Bernéus, Sandberg and Wahlbeck 2008, 7.)

Let us take an example of a football match to illustrate confirmation bias. Let us assume that a football match just ended where a team, “team A” won the match and another team, “team B” lost the match. An individual is given a task to write a match review on that game. He believes that team B lost the match due to a poor performance of a particular player, say player X of team B. He then interviews few of the audiences and asks them the reason why team B lost the game. Some audiences, for example say that team B lost the match because team A had a better performance and many star players and other audiences, for example say the loss was because of a poor performance by the player X. Then while writing the match review, he tries to neglect the fact told by some of the audiences, i.e. team A had a better performance and many star players in their team. He tries to focus on the point that the match was lost because of poor performance by the player X because this is what he believes. This belief is also supported by few of the audiences. At this point, the review writer tries to avoid the information provided by the other audiences because it contradicts with the existing information or belief that he had. He might write a few sentences regarding this information as well but throughout his match review he continues to focus on the pre-information he had or assumption that he had already made. He tries to seek evidence that supports his belief about the match and continues focusing on that point. This biased behaviour of the match review writer is called confirmation bias.

## 2.9 Behavioral critique

### Sin city

There are seven sins explained in A Practitioners Guide to Applying Behavioural Finance

By James Montier, which force people to make irrational decisions.

- Sin 1: Forecasting (Pride)

Using forecast, as an integral part of the investment process is not good.

- Sin 2: The Illusion of Knowledge (Gluttony)

Jack-of-all-trades but master of none - Instead of focusing on few important issues, investors tend to act like an expert about everything. More information on something makes a person overconfident rather than a good decision maker.

- Sin 3: Meeting Companies (Lust)

Not always, but sometimes companies just waste their time doing meetings when there is nothing more important to do. Most of the time the meetings don't just go to conclusion and it is merely a mutual love-in. It is often used in filling in time that just makes the companies look busy.

- Sin 4: Thinking you can outsmart everyone else (Envy)

Every investor thinks that he can get in at the bottom and get out at the top.

- Sin 5: Short time Horizons and Overtrading (Avarice)

Investors end up trying to perform on very short time horizons thus end up overtrading.

- Sin 6: Believing everything you read (Sloth)

We all hear success stories but stories can be misleading. Instead of being inspired by a story and blindly following it, it is better to take a look at the facts and work accordingly.

- Sin 7: Group-Based Decisions (Wrath)

Many decisions made by the investors are a result of group interaction. But groups tend to amplify the decision-making process rather than solving the problems. Rather than dividing problems it sometimes just multiplies them and thus making the decision-making process very tough.

### 2.9.1 Pride

Lao Tzu, a philosopher of ancient China, has said that, “Those who have knowledge don’t predict. Those who predict don’t have knowledge.”

A force of overconfidence drives predicting or forecasting. According to James Montier, the two most common biases are overconfidence and over-optimism. Overconfident person does not have any uncertainty about his own ability, correctness or successfulness. Overconfidence results in a situation where people get more surprised by the result than they should actually be. (James Montier 2008, 99.)

James Montier has also stated that experts are more overconfident than lay people. Experts are generally much too sure about their ability to predict something. Similarly, professional investors are proved to be particularly overconfident. In his book, James Montier has said that he has found 75% of fund managers think that they are above average at their job. He has also mentioned a recent study where 68% of analysts thought they were above average at forecasting earnings. (James Montier 2008, 99.)

Psychologists have determined that overconfidence causes people to overestimate their knowledge, underestimate risks and exaggerate their ability to control events. People continue forecasting even after many evidences have proved that they aren’t good at forecasting. This is because of two human characters, i.e. ignorance and arrogance.

Ignorance means that a person is not aware of his overconfidence. For example, a person who is continuing to do wrong forecasts still believes that he is more than able to predict. Not knowing that he is overconfident, the person has ignorant characteristic.

Arrogance means that a person is aware that he is overconfident but he thinks that he should well be overconfident because he is the expert on the field. Such people display their superiority or self-importance in an offensive manner. Whenever the prediction done by such people is wrong, they tend to say that it was a case of exception.

James Montier has given so many evidences that people are generally dreadful at forecasting and yet many investors use forecasting at the very centre of their investment process. James Montier, however, has given some suggestions that can be used in order to avoid forecasting during investment process. The most obvious solution, according to him, is to stop relying on pointless forecasts. He has suggested the use of other strategies, such as value-based strategies based on trial earnings, instead of using pointless forecasts. He has also suggested us to redirect our efforts away from forecasting. Instead of having economists who make an influence on investors by making forecasts, it is better to have a group of analysts who can analyse the present and understand what that means for the future. James Montier knows that his suggestions require a radical re-think of the investment process and hence, it is unlikely to occur.

## 2.9.2 Gluttony

Often information is mistaken for knowledge. People tend to think that more the information they have, better the information is. This is not always true. Information is raw form of statistics or data used to define a specific situation whereas knowledge is something that is applied to interpret information about the situation and decide how to handle it.

Information is not knowledge until and unless it is applied effectively. Albert Einstein has also said that information is not knowledge. More information and better information are two different things. More information does not always mean that the information is better. Instead of giving more accuracy, more information makes a person rather overconfident.

Confucius has said that, “When you know a thing, to hold that you know it, and when you do not know a thing, to allow that you do not know it – this is knowledge.”

James Montier, while defining illusion of knowledge, has used a study made by Oskamp, back in 1965. In his study, Oskamp set up a profile of a young man (Joseph Kidd) who was seeking clinical psychological help. He then divided the information flow into four different stages. Out of those four stages, in stage one, psychologists were given very little information on the young man, i.e. Joseph Kidd. They were told that Joseph is a 29-year-old white man who is unmarried and a veteran of World War II. They were also given information of his current situation. They were said that he is a college graduate and now works as a business assistant in floral decorating studio. At the end of each stage’s presentation, the psychologists were required to answer questions of Joseph’s behavioral patterns, attitudes, interests and typical reactions to real life events. Each stage was added up with new information. For example, in second stage, the psychologists were given information on Joseph’s childhood through the age of 12. Then on third stage, the psychologists were informed about Joseph’s high school and college life. The final stage, i.e. the fourth stage consisted of the information of Joseph’s later part of the life, i.e. from army service to his present life (Montier 2008, 135.)

Oskamp then drew a graph of confidence and accuracy in all those four stages. The graph below represents the confidence gained by the psychologists, and the accuracy of the answers of the psychologists on Joseph’s behavioral patterns, attitudes, interests and typical reactions to real life events. (Montier 2008, 135.)

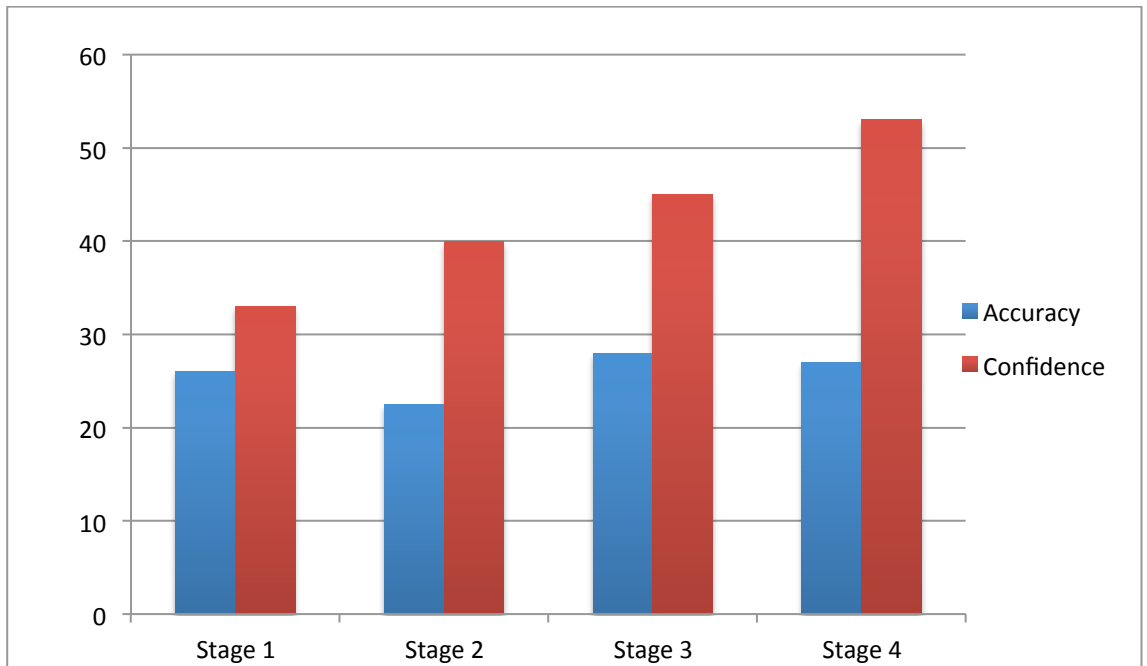


Figure 3 Adopted from James Montier which was originally adopted from Oskamp

It can be clearly seen from the graph that no judgement has ever reached an accuracy of 50% or more. The accuracy has only marginally increased as the information is increased from the first stage to the fourth stage but something has gone wrong with the confidence level. As the information has increased in each stage, the confidence level of psychologists have gone remarkably high, from 33% in the first stage to 53% in the fourth stage.

On the same study, Oskamp has also followed the number of psychologists who change their mind at each stage. He has plotted them in a graph as well.

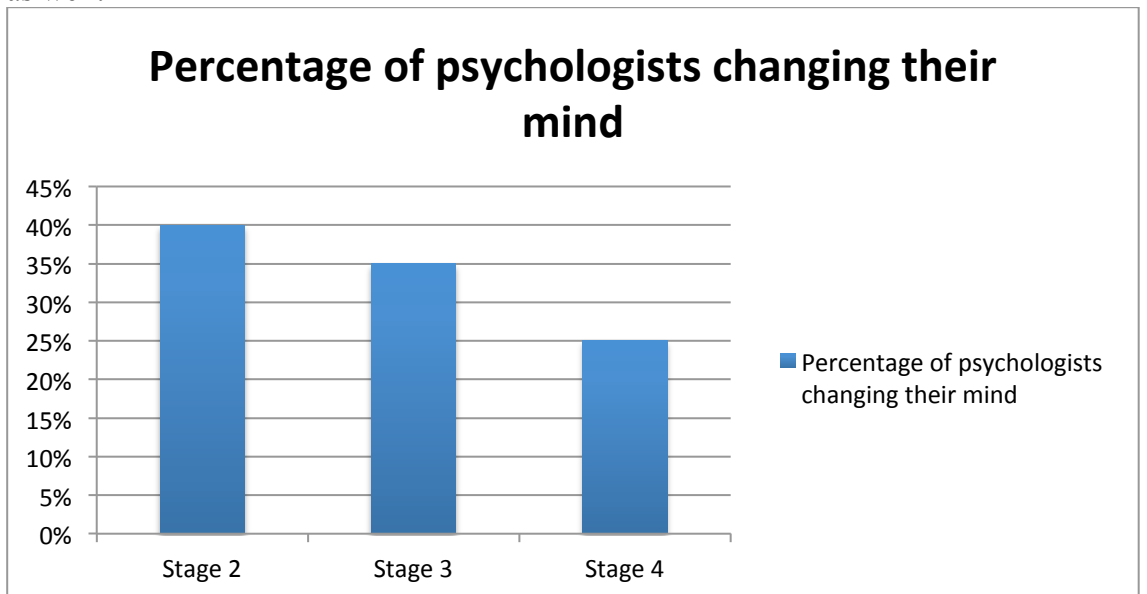


Figure 4 Adopted from James Montier which was originally adopted from Oskamp

Surprisingly, as the amount of information increased from the second stage to the fourth stage, the number of psychologists changing their minds dropped from 40% to 25%. Oskamp has summed this up saying that the psychologists might have already formed a stereotype conclusion in stage one, so they didn't change their mind even after new information was given in different stages.

### 2.9.3 Lust

We have already noticed above that more information is not better information. Yet, when there are company meetings, one thing they seek for is information. There is a flow of information. More information, instead of creating better investment opportunities, rather creates an increased confidence level. And as discussed above in the second sin, gluttony, an increase in confidence level does not increase accuracy.

Like everybody else, corporate managers are also victims of cognitive illusions. They also suffer from cognitive biases as a normal person does. One of the biases that should be mentioned here is confirmation bias. Instead of finding out a solution that disagrees to a base case in a meeting, often it is tried to seek out for the information that agrees to the base case. Confirmation bias can be defined as a habit of looking for information that agrees with us. So, in the meetings, rather than trying to find a solution, one tries to find information that supports the point of view one is already having. This can prove that instead of providing deep insights on why an investment should be made, company meetings can sometimes be only filling out time with something that makes them look busy. (Montier 2008, 143.)

A classic example of managers being overconfident is that they are more optimistic about their own company than the economy as a whole. When it comes to behavioral biases, managers are just average as the rest of us. They are as biased as the rest of us. If it is all about re-confirming what they already believe, then it's just a waste of time doing company meetings. (Montier 2008, 143.)

Another reason why meetings can be sometimes waste of time is that we tend to be too much obedient to the authority. James Montier argues that we have a tendency to believe in what we are told by the people in positions of authority. We appear to follow instructions and do what we are told to do simply because the person giving orders is a higher-ranking person than us. The figures and facts given to analysts and fund managers are too easy to be believed as an authority figure and there is no difficulty for the analysts and fund manager to believe what they are told to believe. The stronger the management is, the easier it is to influence the analysts who cover the stock.

Another reason why company meetings is not always fruitful is that we tend to believe that we can spot lies. Whenever someone is trying to fool us or deceive us, we have a tendency to believe that we can spot it. While having company meetings, it is not always the fact that we hear truth in

the meeting. James Montier argues that we generally perform in line with pure chance. We might be able to spot the lies but that is not the case always. So, if we are having meetings where we cannot spot the lies, then there is no point in having the meeting at all. This is merely a waste of time and filling up our schedule so that we look busy all the time.

### 2.9.4 Envy

James Montier has pointed out that people have a tendency to believe that they can outsmart everyone else.

Above, we have been discussing about how over-confidence and over-optimism are two factors that persist in us in some form. Yet, after reading so much on behavioral finance, we tend to think that we know it the best and we can outsmart everyone else. This is the kind of behavioral critique that exists as a sin in all of us.

Because of a pressure to perform on month-to-month basis, professional investors are forced to make their decision on a risky situation. James Montier argues that such people think that they are the better ones out there. But it isn't possible for every single investor to be on the top. Of course, the best is always only one. Somebody has to be crushed.

James Montier conducted a survey to see whether or not his argument about people's thinking that they can outsmart everyone else is valid. He names his survey as a game where people were asked to pick a number from 1-100 and the winner would be those people who can get close to two third of the average number picked. In this "game", one had to try to think of a number, which other people might pick and then pick a number, which is two-third of that number. In simple words, if 10 people pick number 100, then the people who pick two-third of it, i.e. 66.67 (closest to it could be 66 or 67), would be the winners. He had 1000 respondents. But if every respondent thinks it the same way, i.e. 67 would be the winning number, then the winning number would change to two third of 67, i.e. 44. And if they think that the winning number would be 44 and most of them chose 44, then the winning number would change again to two third of 44, i.e. 29 and this process will keep on continuing. (Montier 2008, 163-168.)

The result of James Montier's survey was that the average number chosen by most of the people (22% of the total respondents) was 26. So, the winning number, i.e. two third of 26 is 14. Only 3 participants out of 1000 got it right. (Montier 2008, 163-168.)

What can be concluded from this is that people keep on thinking they can outsmart everyone else. The rookie participant of the survey, who James Montier classifies as level 1 respondent, chose a number 50. Then the participants with a higher level of imagination chose two third of that number, i.e. 33. Then third level participants, as classified by James Montier, chose 22. 9% of the total participants chose this number, which is quite a high figure.

### 2.9.5 Avarice

People seem to put a short time deadline to everything in the financial and the investment world. According to James Montier, trustees, consultants and internal managers seem to have a want to evaluate their fund managers as frequently as possible. (Montier 2008, 179-181.)

James Montier also argues that the investor who invests on long-term expectation is likely to face more risks than the one investing on short-term expectation. According to him, one who can guess and follow people's behaviour easily makes a lot of return of his share prices by investing on short-term basis rather than waiting for a longer period of laborious days and unsure return. But his study proves that if the investors investing on long-term horizons and short-time horizons respectively are of same level, meaning that they both have equal intelligence, then it is more likely that the one who invests on short-time horizon makes disastrous mistakes.

It is true by human nature that we desire more money in less period of time. He who invests in long-term returns has to be more patient and wait for a long time to make profit from his investment. People would rather gamble and make a quick profit than wait for a long period of time and be uncertain how much the profit is going to be.

James Montier argues that long-term investment strategy should be brought into practice. He says that if long-term investment strategy is brought into practice, companies can be more honest about the risk of loss in short time, which will be very high. James Montier has mentioned that this creates a better-structured contract between the ultimate investors and their chosen agent. This, according to James Montier, will also discourage people from using their illusion of knowledge and making wrong decisions. (Montier 2008, 179-181.)

When investors are myopic (short-sighted), they tend to check their performance frequently. James Montier has argued that, the more frequently they check their portfolio performance, the more likely they are to encounter a loss.

We all know that people tend to underperform when they are repeatedly pressurized to produce a better result within a short period of time. This disorder that forces people to underperform is known as Attention Deficit Hyperactivity Disorder (ADHD). James Montier says that analysts need to stop obsessing about the next quarterly set of results, which will allow the managers to get back to running their business, so that the shareholders can be benefited. (Montier 2008, 179-181.)

2.9.6 Sloth

If we want to understand something, we need to believe it first. It might not be the case that every story we hear around the corner is true. It is important for us to be able to put our own effort to know whether the story being told is a real one or is somebody just trying to drift us away? Stockbrokers have an ability to spin a story and spread a particular message around. It is not necessary that the message so spread is true. Stockbrokers play their part to attract the investors. The hope of growth drags investors to believe in what stockbroker has to say. Finally they end up losing money on shares. (Montier 2008, 189-191.)

The rational world says that after you hear a story, go around and gather the evidence, then evaluate it, then weight it, and finally you can make your decision based on the evaluation. However, in the real world, i.e. the behavioral world, we collect evidences, which are usually in a biased fashion, and then what we do is construct a story to explain those evidences and use the same story to reach a decision. This, according to psychologists, is explanation-based decision-making. James Montier has drawn a diagram, which can help us understand this better which he calls the story-model of thinking. (Montier 2008, 189-191.)

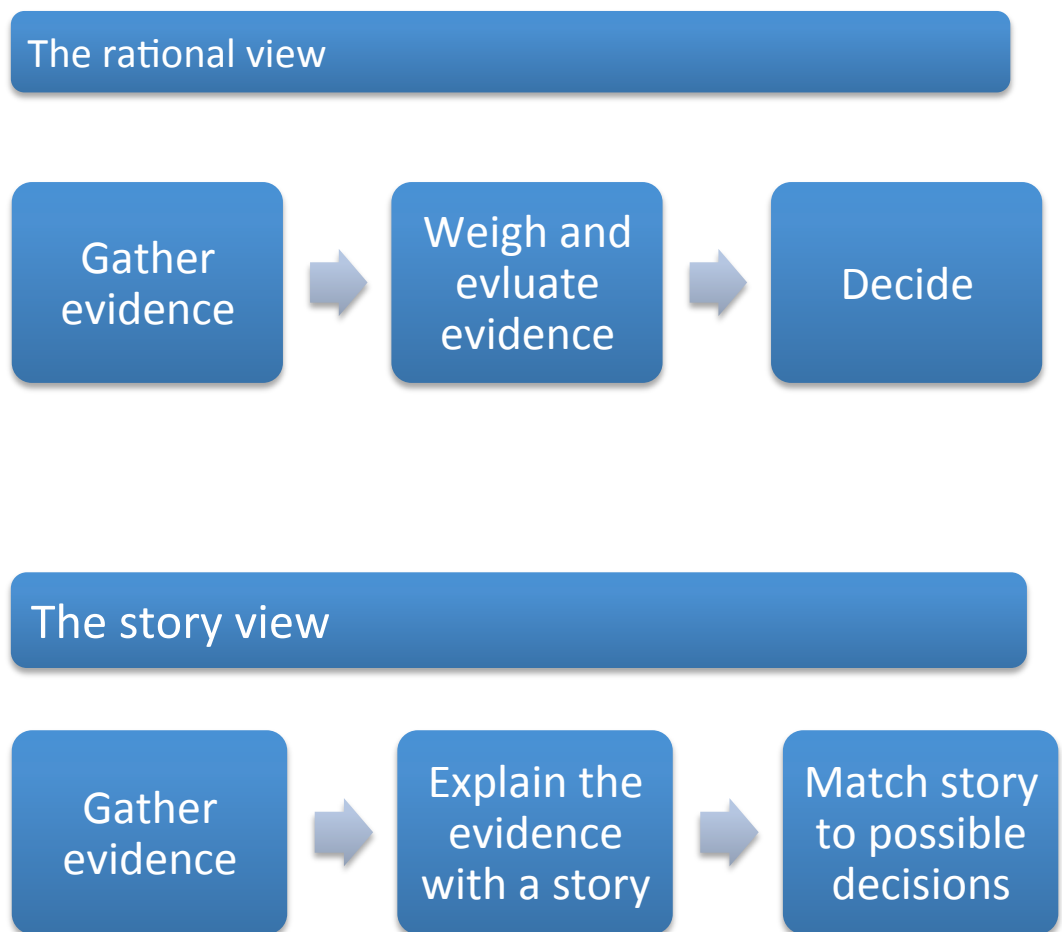


Figure 5 Story model of thinking, Adopted from James Montier

James Montier has suggested some valuable information if we are to really try and assess the validity of an argument. He suggests us to try our best to avoid distractions, which can picture us misleading stories, for example, turning off our screens, putting our cell phones to call forwarding, trying to cut ourselves from all sort of noises. This will give us a clear chance to weigh and evaluate the gathered evidence, so that we can make a better decision. (Montier 2008, 189-191.)

### 2.9.7 Wrath

Psychologists have spent many years and concluded that the decisions made by a group are worse than an individual decision. This might be because of the fact that when we are making an individual decision, we have to deal with our own biases but when it comes to a group-based decision, we have to deal with the biases of everyone else included in the group. (Montier 2008, 209.)

The dream model of a group-based decision is that after meeting in a group, there will be exchange of ideas and a sensible conclusion can be reached on that ground. It is believed that the group members working in a group will offset each other's biases and make the decision more sensible. But in reality, it doesn't happen so. Instead of offsetting each other's biases, group tend to amplify those biases and create a bigger situation of chaos. We could have a variety of options if we were to reach a conclusion on our won but in a group, the options are cut down to less. James Montier argues that groups are also very bad at uncovering hidden information.

While in a group, people tend to drop down their own point-of-view and they tend to agree with others. This might be because people have a tendency where the more they hear a view, the more confident they become that the view is true.

Group decisions often make a group more confident in their decision but more confidence doesn't yield more accuracy. This is because people just become too sure about the views they hold. (Montier 2008, 209.)

One factor why groups are bad on information sharing could be because of social pressure. Someone who has information might not simply share it if he is from a relatively low status. If he does, he might look stupid in front of his colleagues. The risk of reputation is too high for that low status person to share the information, which might not fit in the group. This might go the other way round. For example, if there is someone in the group who is of a relatively low status, people might have a strong tendency to agree to the information he shares in the group, even though the information he shared is of no use or is not true. (Montier 2008, 209.)

### 3 RESEARCH

In the following chapter, various methods used for data collection as a part of the research, are discussed.

#### 3.1 Data collection

Data collection was conducted using primary research method. In order to get a clear view on behavioral finance, the company and the customer's reactions to it, the research was divided into two parts: Interviews with the management and a survey with the customers.

##### 3.1.1 Management interview

Before conducting the interview with the management, open-ended questions were designed. There were a number of issues to be addressed in the interview. The aftermath of the crisis and the customers' reactions to it were the main issues that needed attention.

Apart from the aftermath of the crisis and customers' reactions to it, there was an important issue that needed to be addressed, i.e. the inter-banking loan. This might not be familiar to all. The unavailability of funds in a bank forces that bank to take a loan from another bank in order to carry out the required day-to-day operations. This situation occurred in the banking industry in Nepal because of the banking crisis during the civil war. During this period, the issue was common. Many banks were facing problems with a high inter-banking loan percentage. The banks, which had enough fund, were not there to do the charity work, so, they kept on increasing the inter-banking loan percentage. The inter-banking loan percentage during that period was 14%, which is considered quite a high percentage.

Since the commissioning company is in Nepal and a group interview with the management committee was not possible, interview questions were sent well in advance via email to the management committee of the company. Then a date was agreed for the interview. The management committee had a meeting where they came up with answers to the interview questions. Since it was not possible to be physically present at the case company during the interview, Mr. Raju Khatiwada, the chairman of the company, gave a phone interview representing all the committee members on the agreed interview date. The interview mainly focused on determining the following things:

- Banking and financial crisis due to the political situation of Nepal and the effect of the global crisis.
- Management point-of-view on customer behaviour.
- Inter-banking loans.
- Preparations for avoiding a similar situation in the future.

### 3.1.2 Survey with the case company's customers

In addition to the interview with the management, a survey was conducted also with the customers of the case company.

The survey was mainly focused on determining the people's tendencies related to the chosen theory. The customers in this case were compared to the investors in the theory. For the survey, customers with a share investment in the case company and customers with fixed deposits in the case company were chosen. The reason behind choosing such customers was that they could be compared to investors. In Nepal's context people are more attracted to invest their capital in a fixed deposit account in a bank rather than other places, because this gives them more return on the investment than any other businesses. Apart from the return, investors feel more secured to deposit their capital in a bank. Like the interview questions, survey questionnaires were also sent to the chairman of the case company, i.e. Mr. Raju Khatiwada. He then handed them out to the shareholders and people with fixed deposit accounts in the banking company.

The main focus of the survey was to examine how investors, reacted to a problematic situation presented to them. There were both direct and indirect questions included into the questionnaire. The questionnaires were designed in such a way that some problems or situations were addressed, which linked to the above-mentioned theories and critiques. The problems or situations in the questionnaire were designed in such a way that certain behaviours could be traced using the responses.

Most of the questions in the questionnaire were selected from literature and surveys conducted by James Montier, Kahneman and Tversky, Hersh Shefrin, Richard Thaler etc. All of these researchers are prominent job in the literature of behavioral finance.

## 3.2 Survey biases

### 3.2.1 Interpretation bias

A glass half-filled with water might look half full to an optimist whereas half empty to a pessimist. In the same way the respondents might have interpreted the survey questions designed to trace certain behaviour of the investors in a different way than the author intended.

### 3.2.2 Non response

There were a few questions left blank by some respondents. This might be because the respondent misunderstood the question or they intentionally left a question out, which they did not want to answer.

### 3.3 Relation of interview and survey with the research problem

The questions asked in the interview mainly focused on the financial crisis brought on because of the political situation of the country, i.e. Nepal. The management was also asked about the inter-banking loan and its effect on customer behaviour. The management was also asked about the steps they were thinking of taking in the future so that they could better understand the changes in the financial behaviour of their investors/customers. By getting answers to all these questions, it would be easy for the author to see what steps the management was lacking that would have helped the investors to keep having faith in the company.

The survey questions that were asked were mainly linked to the theory part of this research. The survey was mainly focused on trying to figure out the situations that caused behavioral changes in the investors/customers. The survey also focused on getting a clear understanding on whether the customers reacted to a certain situation in a similar pattern. For this purpose, the survey designed by James Montier was taken into use. From the survey results, the author could easily determine whether the behavioral pattern of reactions to a situation was similar for most of the investors.

With combined answers from the interview and the surveys, it was easier for the author to know what the management committee thought about the behavioral changes in their investors/customers and what the customers thought about the management committee when there was a situation of dilemma concerning investments. Not only this, the survey also gave a clear viewpoint on whether all the investors reacted to a situation in a similar way because the answers given by the investors in this survey were compared to the answers given by other investors in other surveys conducted by James Montier, Oskamp etc.

## 4 ANALYSIS

The analysis of this research was carried out in two parts. The first part consisted of the answers to the interview questions given by the management committee of the commissioning company and the second part consisted of the survey answers from the customers of the commissioning company.

### 4.1 Interview

To get a clear view on what was the aftermath of the crisis in the banking sector in Nepal, the first question was the effect of the crisis brought to the commissioning company by the political situation of Nepal. Mr. Raju Khatiwada, the chairman of the company, in response to this question said that there were more and more people moving out of the country in search of better employment opportunities. Because of this, the bank had lost several customers. From this statement, what can be understood is that emigration resulted in a situation of financial crisis in all the banks, not only the commissioning company. The economy of the whole banking industry was shaken by the political instability of the country.

As James Montier explained in the 6<sup>th</sup> of his seven sins; Believing everything you read (Sloth), people started blindly believing what they had heard about the crisis situation (Montier 2008, 189). On being asked if they lost any customers because of the rumours in the financial market regarding high inter-banking loan percentage, chairman Khatiwada said that there obviously were rumours going around about the inter-banking loan percentage being high. Many people felt insecure to invest their capital into stocks and make a fixed deposit into the company. They weren't sure if the company was going to collapse. They rather chose investing their capital into immovable assets such as gold, silver, land and properties.

In other banks people had to inform the bank three days in advance if they wanted to withdraw a high sum of money but this was not the case with this bank, said Mr. Khatiwada. Still, people had a feeling of insecurity towards all the banks and they would rather buy immovable properties and utilize their funds than deposit it into a bank. What can be concluded from this is that, people tend to believe in stories rather than look at the evidence. According to James Montier, a proper way to make a decision is to gather evidence first (Montier 2008, 190). Then the gathered evidence should be weighed and evaluated properly. Only after that proper judgement can be made. But what people tend to do is, they gather the evidence, then they explain the evidence with a story and then match that story to possible decisions. The evidence so collected in the later part is not in a proper way. People use biased fashion to collect such evidence. Because of the rumours in the financial market, people were using such explanation-based decision-making, which caused the commissioning company to lose their customers.

On being asked whether they had tried using any tools or methods to change the irrational thinking of their customers, Mr. Khatiwada answered

that they did not have any tools or methods that measured the behavioral change in people till date but that they would be happy if the author could come up with some tools or methods, that they would be able to use in the future so that they could be better prepared for the similar situations of behavioral change in their customers because of a financial crisis. This clearly shows that the case company would be facing a similar situation if the crisis hit back or if their customers showed any behavioral change because of an unknown reason.

### 4.2 Survey

The survey was conducted by sending out the questionnaires to the chairman of the commissioning company, Mr. Raju Khatiwada who then forwarded them to the shareholders and fixed deposit account holders of the company.

Out of 72 such customers, 94.4%, i.e. 68 people replied. A total of 6 such questionnaires (including the classifying questions) were formulated. All of the questionnaires so formulated were related to the theory mentioned above either directly or indirectly.

#### 4.2.1 Classifying questions

The first and the second questions in the questionnaires were classifying questions, formulated to find out the gender and the age group of the customers involved in the survey. Out of 68 respondents, 58 respondents, i.e. 85.3% were male and 10 respondents, i.e. 15.7% were female (Figure 6). It was expected that most of the respondents would be male customers because Nepal is a male-dominated country. The head of the family, i.e. a male, mostly makes the investments and fixed deposits.

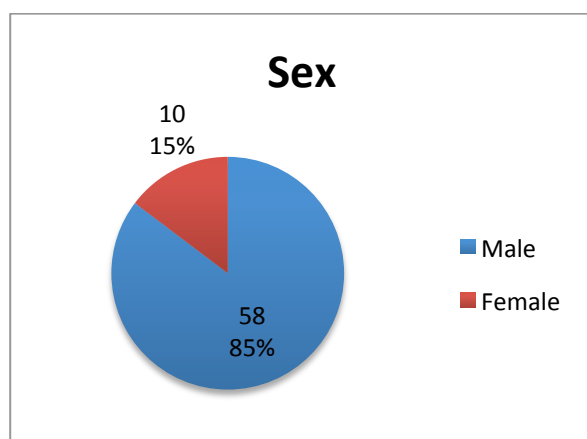


Figure 6 PMCL's customers according to sex

27 of the 68 respondents were from age group 40-45 (Figure 7). This yields 40% of the total respondents. This suggests that people start investing their money in shares only after they get to their middle age. This was also quite an expected result because a big family concept is practiced in Nepal. Children live with their parents until they really need to move out

for some strong reasons, for example migrating from one place to another (within the country) in search of better opportunities or because of a dispute in the family. The head of the family, i.e. the parents in this case would then make the financial decisions for the family. Children simply bring their income home and give some part of their income to their parents in order to run the basic domestic chores.

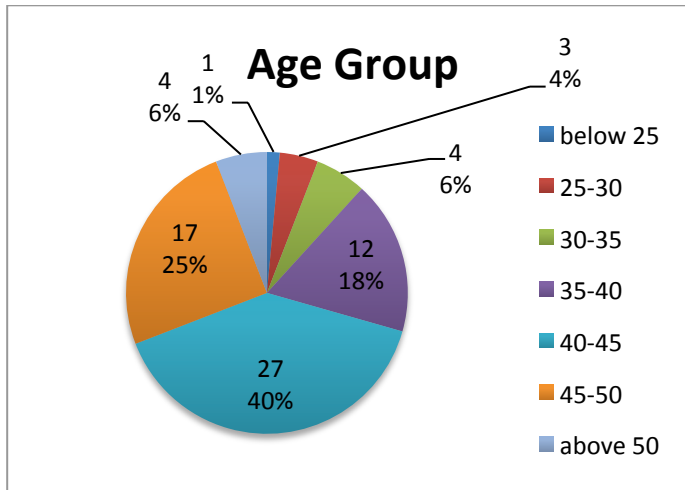


Figure 7 PMCL's customers according to age group

#### 4.2.2 Gambler's fallacy

A question based on the theory of gambler's fallacy (Bernéus, Sandberg and Wahlbeck 2008, 7) was formulated and asked to the shareholders and fixed deposit account holders of the commissioning company.

Question: A coin is tossed 5 times. Each toss gives you head as a result. If you had to bet Rs. 1000 on the next bet, what would you bet for?

All 68 respondents responded to this question. The survey result is represented graphically below in Figure 8.

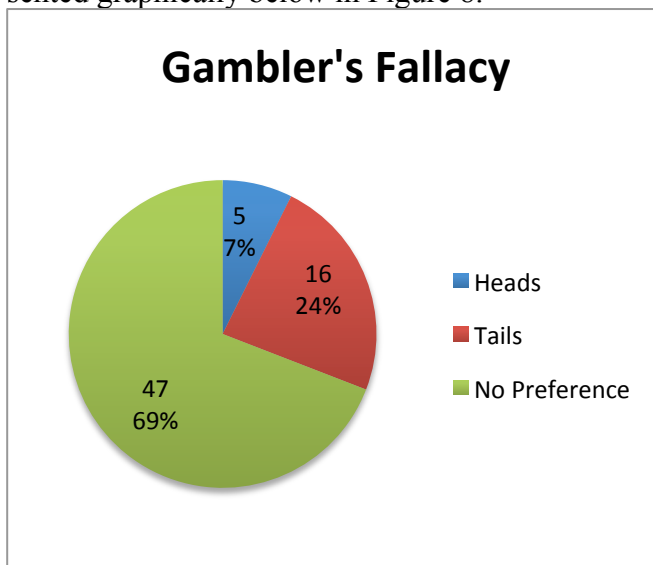


Figure 8 Result of survey on Gambler's Fallacy

5 people out of 68, i.e. 7% of the total respondents replied that they would bet for heads on the next toss, whereas 16 people, i.e. 24% said they would bet for tails, and the remaining 47 people, i.e. 69% of the respondents had no preference for heads or tails on the next toss.

Most of the people got their answer right to this question. 47 people who replied that they do not have any preference for head or tail on the next toss were the ones who replied to the question correctly. Because whenever a coin is tossed, whatever the previous result may have been, there is a 50-50 chance of getting heads or tails as the next result. Getting heads 5 times during a previous toss does not mean that there is a higher probability of getting heads on the next toss as well.

In this case, 69% of respondents made a correct judgement and showed rational behaviour but it must not be forgot that 31% of the people who either answered heads or tails, are the people who are suffering from cognitive biased behaviour.

### 4.2.3 Herding/crowd

Question: There are two restaurants in front of you, one Japanese and one Chinese. You have no idea about the type of food they offer and you are very hungry. There are 5 people in the Japanese restaurant but the Chinese one is empty. Which restaurant will you go to?

There were 67 responses to this question. The result is represented graphically below in Figure 9.

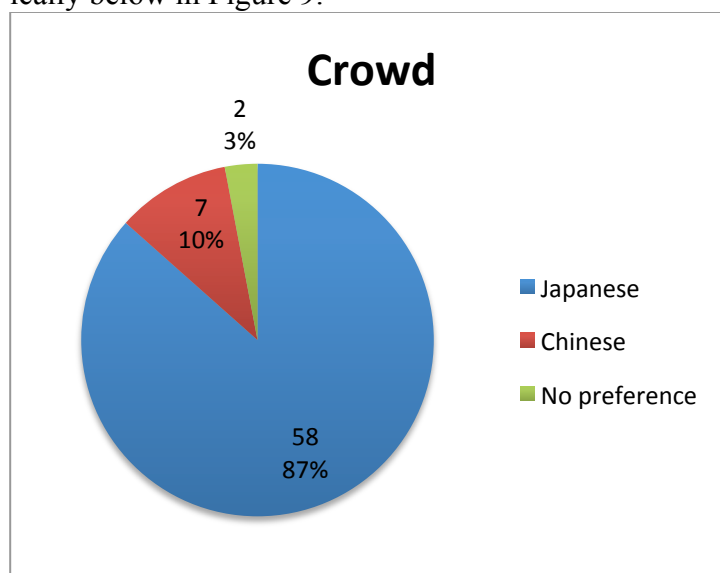


Figure 9 Result of survey on Herding behaviour

Not having an opinion of one's own and strongly relying on and following what a large number of people have to say or do is known as herd behaviour. Herd behaviour is one of the most often encountered behavioral biases among investors in the financial markets.

It can be clearly seen from the survey result that 87% of the total respondents want to go to a Japanese restaurant to eat. This might be because they thought that the Japanese restaurant had either good food or good service, which is why they had five customers there. May be the quality of the food or service was not so good in the Chinese restaurant, which was why they had no customers at all. Since five people chose the Japanese restaurant and were enjoying their food, people were more attracted in going there. Had the Chinese restaurant had more customers in their restaurant at that time, the people would have preferred to go there. 10% of the respondents in this survey replied that they would prefer going to the Chinese restaurant. Probably these are the people who are not influenced by other people's decisions or may be they just love a peaceful environment.

It was obvious that most of the people were doing what the crowd was doing but it was surprising to see only 3% of people having no preference about going to the Japanese or the Chinese restaurant.

#### 4.2.4 Prospect theory

Question: You have to make concurrent decisions for the following pair of options. First check both the options then make a decision.

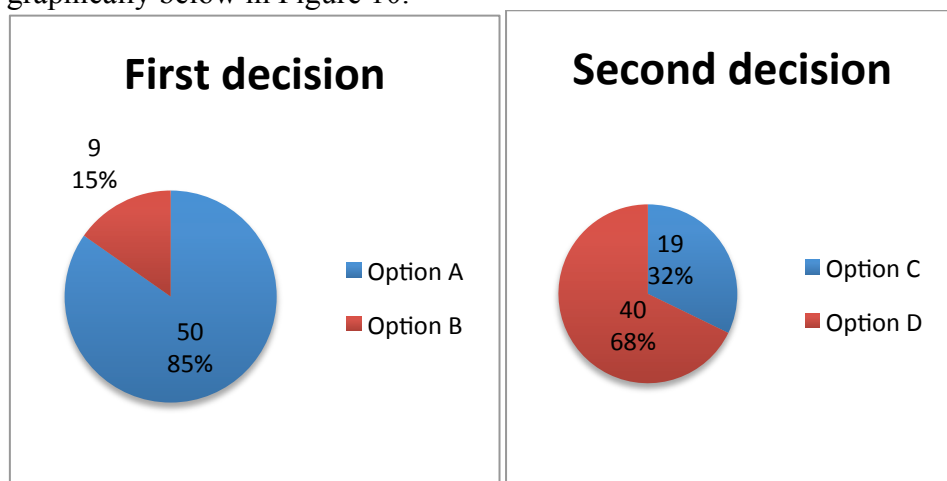
There were two sets of decisions to be made in this survey. The options for the first decision were:

- A. A sure chance to get Rs. 5000
- B. A 30 per cent chance to get Rs. 150000 and 70 per cent chance to get nothing

The options for the second decision were:

- C. A sure loss of Rs. 10000
- D. A 70 per cent chance to loose Rs. 200000 and 30 per cent chance to lose nothing

May be the question was a bit unclear or a bit tricky to understand. So, there were only 59 responses to this question. The result is represented graphically below in Figure 10.



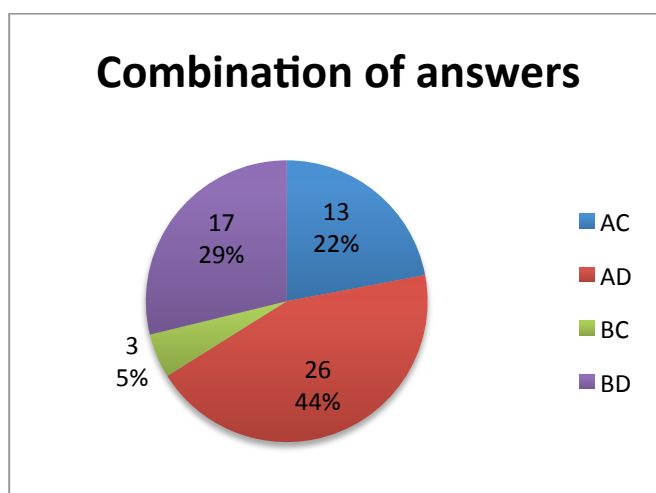


Figure 10 Result of survey on Prospect theory

In the first part of decision-making, the respondents had to choose between a sure gain of Rs. 5000 or a 30 per cent change to gain Rs. 15000 and 70 per cent chance to gain nothing. There was no surprise on seeing 85% of the respondents going for a sure gain, as the theory had indicated the same. Only 15% of the total respondents were ready to gamble.

In the second part of the decision-making, respondents had to choose between a sure loss or a 30 per cent probability to lose even more and 70 per cent probability to lose nothing. As was mentioned earlier in the theory part, the pain of losing something is more than the joy of gaining something worth the same value (Bernéus, Sandberg and Wahlbeck 2008, 10). This was proven by the survey result. People, in this case, were ready to gamble. They did not want to lose their money that easily. In the question, they had an option where they could have a chance of saving that loss and no surprise 68% of the respondents went for this option. The remaining 32% respondents might be those who were unwilling to take a risk in any given situation. They might have thought that instead of being in a situation where one could lose Rs. 200000, it would be better to lose Rs. 10000 and be sure about no further loss.

People who chose option A in the first decision-making question and D in the second decision-making question yielded 44% of the total respondents. People, who gambled in the first decision-making question, mostly gambled in the second one, too. We can see in the pie chart (Figure 10), that 29% of the people were going for the situation of uncertainty, i.e. either gain or nothing in the first one and either loss or nothing in the second one. It was surprising to see how people who favoured option A in the first question favoured option C in the second, i.e. a sure win and a sure loss. But not many people made this decision. It was still interesting that the percentage of respondents making such a decision was 22. Only 5% of the total respondents went for option B in first question and C in the second, i.e. gamble to win and a sure loss. This was the most surprising part of the survey.

#### 4.2.5 Sin 1 (Pride)

Question: Are you above average at your job?

68 people replied to this question. Here are their responses represented graphically in Figure 11.

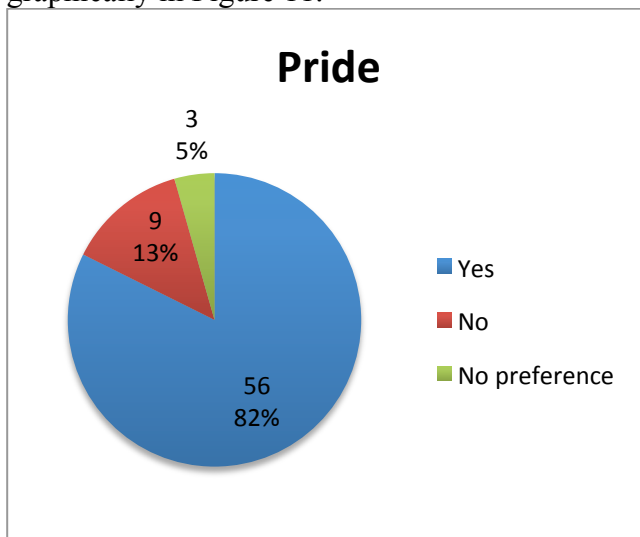


Figure 11 Result of survey on Pride

James Montier conducted a similar survey among professional investors in the United States of America where he found out that 75% of them thought they were above average at their job. Only 25% of those professional investors thought they were equal or below average at their job (Montier 2008).

We have a similar situation here in this survey. Even in Nepal people think that they are above average at their job. 82% of the respondents thought they were above average at their job. Only 13% people thought that they were not above average at their job and the remaining 5% had no preferences whether they were above average at their job or not.

As mentioned in the theory part above, it is a sign of overconfidence. Psychologists have determined that overconfidence causes people to overestimate their knowledge, underestimate risks and exaggerate their ability to control events (Montier 2008, 99). People continue forecasting even after many evidences have proved that they are not good at forecasting.

## 5 RECOMMENDATIONS

This chapter focuses on how behavioral finance can be used to overcome a financial crisis caused by the cognitive biased behaviour of people.

Nepal is likely to have such a situation in the future. The political situation of the country, instead of taking a right turn, has taken a different turn. The country's economy is being spent on worthless things. After the end of the civil war, constituent election was held under difficult conditions. It didn't seem easy to hold the election but this was one critical success achieved after the end of the civil war. The main responsibility of the constituent election was to write a new constitution because a constitution was needed after the end of the monarchy. But on 27<sup>th</sup> May 2012, after 4 years of existence, the constituent assembly was dismissed. Nepal had to bear a loss of almost 80 million euros. The loss occurred mainly because of the salaries and different bonuses given to all the 601 members of the constituent assembly. They received their salaries, allowances and bonuses for 4 years and at the end, there was no use of them being in their positions. The constituent assembly had to be dismissed without getting any results from them. Thus, instead of having political stability, Nepal is going on the path of instability. This indicates that there is a higher possibility of financial crisis in the future. Thus, there is a need for the commissioning company to be prepared for such situations.

Some recommendations are listed and explained below about the actions, the commissioning company can take in order to cope with the situation of crisis caused by the cognitive biased behaviour of people.

### 5.1 Satisfaction measurement

One thing that can be concluded from looking at the theoretical framework presented above is that the behaviour of investors is not rational. It is hard to predict what decision the investors will make in different situations. But having some knowledge about the reactions to certain situations from investors, it becomes somewhat easier to formulate a work plan, than it would be without having any knowledge on behavioral finance. Though prediction is hard, sometimes under certain grounds, it may be easy to trace down what investors will think like. For example, with the degrading political situation of the country, one can easily make a guess that a financial crisis is going to strike back again.

It could be observed in the interview with the management that the company lacks information on the level of customer satisfaction. There have never been any efforts to find out how satisfied the customers are.

The most important finding in the research project was the need to measure the satisfaction level of the customers. It is necessary to know whether the customers are satisfied or not with the existing schemes that the company has scheduled for them. This can help the commissioning company to formulate new schemes that would attract customers to invest their capital into the company.

Customer satisfaction can be measured by arranging a feedback session in the company at regular intervals. Organizing sessions where customers can interact with the management committee can be conducted as the measurement of the satisfaction level. It is mentioned above that meetings were usually arranged at the company just to fill the spare time they had. So, sessions like this must not be of such type where it would seem that the company is just organizing such meetings in order to make them look busy and make their schedule look tight. According to the third sin of behavioral critique presented by James Montier, companies often call for such meetings because they have nothing better to do (Montier 2008, 143.) So such sessions should be fruitful. There should be proper implementation of strategies where required according to the suggestions of the customers. This would make the customers think that the company actually listens to them and they would be more interested to invest their capital into the company. They will have a feeling of security if the company can show them that they really care for their customers' satisfaction.

### 5.2 Up-to-date information

It is important to update all the possible information to the investors in the company about any new plans or schemes that the company has applied. Information is the key factor that keeps motivating the customers to trust the company.

Investors in many cases make rational decisions but biased behaviour still exists in them. One of the most important biased behaviours mentioned earlier in the theoretical part of this research process, is confirmation bias. People have a tendency to seek for information that agrees with their existing beliefs. It is hard to make a person believe what he thinks is not the right thing. If the investors are kept up-to-date about the new schemes, plans or any information related to the company, they are less likely to make a story on their own. They are less likely to create a belief that will later act as an existing belief, which they would want a change in the situation to confirm with (Bernéus, Sandberg and Wahlbeck 2008, 7.) Keeping the customers updated will give them less time to form any strong beliefs or opinions about any bad situations. This means they are less likely to have an existing belief. When they do not have any existing beliefs, they have nothing negative that they can confirm the information with.

If the company succeeds in dealing in a proper way with the confirmation-biased behaviour of its investors, then it is more likely it does not lose its existing customers. Not only that, if they are able to convince the existing investors, it is more likely that new investors will also be attracted towards investing into the company.

When customers are kept up-to-date with the company information, it creates an environment where customers are satisfied with the company. The more satisfied they are, the more secured they feel about their investment in the company.

### 5.3 Information equal to knowledge

As we have discussed above, it is crucial to provide information to the customers about the company time and again. But providing information to the customers does not mean providing them with incomplete information or providing information in parts.

In the second sin of behavioral critique, i.e. illusion of knowledge (gluttony), we discussed that more information is not better information and information only is not knowledge. Information is a raw form of statistics or data used to define a specific situation whereas knowledge is something that is applied to interpret information about the situation and decide how to handle it. (Montier 2008, 135.)

We also took a look at the study made by Oskamp, (1965) about a young man called Joseph Kidd. In that study, he divided the information of that young man into four different parts and gave it to psychologists one at a time. We saw how the psychologists were confident about their findings (guess in this case) about Joseph's behavioral patterns, attitudes, interests and typical reactions to real life events. There was a graph drawn of their accuracy drawn against their confidence. It was clear from the graph that they were more confident but less accurate. This was because they were given very little information at a time and complete information was not given to them at once, though the complete information was there with Oskamp.

Thus, it is necessary to keep in mind for the company that whenever they have information, they do not deliver it to their customers in parts. If delivered in parts, customers will have had their mind made up step by step and the information might misinterpret the message that the company is trying to convey. Whenever information is to be delivered to the investors/customers of the company, it should rather be delivered in a form of knowledge than information.

Depending upon where the current situation might lead us to and what the past experience has taught us, these are the suggestions that might help the commissioning company get out of the situation of financial crisis caused by behavioral change in customers.

## 6 CONCLUSION

Panchashil Multi-Purpose Co-operative Limited (PMCL), which is a “D” category financial institution in Nepal, commissioned this study. The main purpose of this study was to use behavioral finance as a tool and to suggest the commissioning company different ways that can be used to overcome the situation created by irrational decision-making behaviour of investors or the company’s customers.

Many models, theories and hypotheses of behavioral finance by many prominent researchers were used in this study to get a clearer understanding on investor behavioral change after being exposed to different situations.

By using such models, theories and hypotheses, questions were formulated which were used for two purposes, i.e. an interview with the management of the company and a survey with the investors of the company. Based on the answers provided by the management committee of the commissioning company and the company’s customers, the author felt a need of communication between the customers and the commissioning company. A need to measure the level of satisfaction amongst the customers was also noticed. Keeping these needs in minds, recommendations to the commissioning company were listed.

The political situation of Nepal, instead of getting better, is getting worse. Politics have been closely related to the financial ups and downs. If the situation continues this way, it is more probable that in the future, the country will reach a stage of a huge economic chaos. Of course if it is a severe chaotic situation, studying customers’ behavioral change in the financial world will be of no use. But if the company, followed the suggestions mentioned in this research it would help the company from getting lost into a financial dilemma caused by the cognitive biased behaviour of the investors.

Taking advantage of the worse political situation, there is a probability that a number of bank and financial institutions will pop up which means that the commissioning company, PMCL will have to face a huge competition.

The research clearly indicated that there is no rationality in people’s behavioral change. No one can predict the outcome of the financial market based on customer behaviour. But if the company keeps up with the recommendations mentioned above, it could be hoped that the company will not lose its existing customers and this might attract a number of investors towards the company.

## SOURCES

Alan D. Morrison and William J. Wilhelm, Jr., 2007. Investment banking. Oxford University Press.

Bernéus Hannes, Sandberg Carl, Wahlbeck David, 2008. Behavioral Finance – Investor’s rationality.

Edwin J. Elton, Martin J. Gruber, Stephen J. Brown and William N. Goetzmann, 2003. Modern Portfolio Theory And Investment Analysis. Sixth Edition. John Wiley & Sons Ltd.

Erik Banks, 2010. Dictionary of finance, investment and banking. Palgrave Macmillan.

Fight, A. 2004. Understanding international bank risk. First edition. John Wiley & Sons Ltd.

Jay R. Ritter, 2003. Behavioral Finance.

Jean - Charles Rochet, 2008. Why are there so many banking crises? – The Politics and Policy of Bank Regulation. Princeton University Press.

Montier, J. 2008. Behavioural investing - A practitioner’s guide to applying behavioural finance. John Wiley & Sons Ltd.

Peter S. Rose and Sylvia C. Hudgins, 2010. Bank Management and Financial Services. 8<sup>th</sup> Edition. McGraw-Hill/Irwin.

[http://shodhganga.inflibnet.ac.in/bitstream/10603/2027/6/06\\_chapter%201.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/2027/6/06_chapter%201.pdf). Accessed 11<sup>th</sup> January 2012.

<http://www.mocs.gov.np/uploads/Act%20list%20English/banks-and-financial-institutions-act.pdf>. Accessed 18<sup>th</sup> January 2012.

<http://www.sawtee.org/sawtee-in-media/nepalese-banking-crisis-explained.html>. Accessed 16<sup>th</sup> March 2012.

<http://www.econ.yale.edu/~shiller/pubs/p1180.pdf>. Accessed 21st March 2012.

<http://whatinvestorswant.files.wordpress.com/2010/08/statman-what-is-bf-cfa.pdf>. Accessed 20<sup>th</sup> April 2012.

<http://www.panchashilmcl.com.np/index.htm>. Accessed 26th April 2012.

## INTERVIEW QUESTIONS

1. What effect did you face because of the crisis lead by the political situation of Nepal?
2. Did customers in banking sector have behavioral change because of the political situation of the country?
3. Did the world economic crisis have any effect on this bank? If yes, what? If no, why not?
4. Did you loose customers because of the rumours in financial market regarding high inter-banking loan?
5. Inter-banking loan being high did affect the big banks, but were you able to turn this situation in your favour (being a small banking company)? Were you able to take advantage of the situation?
6. If there was an advantage, what sort of?
7. Do you have any tools or methods to measure behavioral change in customers?
8. People's thinking is obviously irrational and in those situations, it was probably negative. Did you try using any methods to convince them or change the irrational thinking from negative to positive?
9. Are you prepared if the situation strikes back?



SURVEY QUESTIONNAIRES

1. Your gender
  - a) Male
  - b) Female
  
2. Which age group are you in?
  - a) Below 25
  - b) 25-30
  - c) 30-35
  - d) 35-40
  - e) 40-45
  - f) 45-50
  - g) Above 50
  
3. A coin is tossed 5 times. Each toss gave you head as a result. If you had to bet on the 6<sup>th</sup> toss, what would you go for?
  - a) Heads
  - b) Tails
  - c) No preference
  
4. There are two restaurants in front of you, one Japanese and the other one Chinese. You have no idea about what type of food they offer there and you are very hungry. There are 5 people in the Japanese restaurant but the Chinese one is empty. Which restaurant will you go to?
  - a) Japanese
  - b) Chinese
  - c) No preference
  
5. You have to choose either of the following concurrent decisions. First check both the choices then make a decision.
  - 1<sup>st</sup> decision:
    - a) A sure chance to get Rs. 5000.
    - b) A 30 per cent chance to get Rs. 150000 and 70 per cent chance to get nothing.
  - 2<sup>nd</sup> decision:
    - c) A sure loss of Rs. 10000
    - d) A 70 per cent chance to loose Rs. 200000 and 30 per cent chance to loose nothing
  
6. Are you above average at your job?
  - a) Yes
  - b) No
  - c) No preference

