

*Full Length Research Paper*

# Moral imagination and management decision-making: An empirical study

Sobia Mahmood\* and Bakhtiar Ali

Department of Management Sciences, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology (SZABIST),  
Islamabad, Pakistan.

Accepted 8 December, 2010

**Moral imagination is the mental ability to create or use ideas, images, discern moral aspects implanted within a situation and develop a range of possible solutions of the situation from a moral point of view. In this research, management decision makers were taken into consideration to dig out the factors that are affecting the decision-making process of management. Business industry has witnessed good and bad business leaders, those who have taken good moral decisions that result in mutual benefit to the company and wider society and those who have taken bad moral decisions that result in wider damage to the society, as well as to the business. Mostly, managers lack the ability to imagine a range of possible issues, consequences and solutions. So just because of their shorter insight and limited conceptual schema, they make wrong moral decisions which later give undesirable impacts to society and business as well. To analyse the complex relationship between the variables, Structure Equation Modelling (SEM) methodology was used. The data collected from 113 respondents in Pakistan were used to test the model by using LISREL 8.80. The model suggested that mutually beneficial decision-making is directly associated with moral imagination, whereas it is not mutually associated with demographic imagination; and on the other hand, moral imagination is significantly associated with empathy, dogmatism and egotism. However, mutual benefit is significantly associated with discerning moral issues and developing alternatives.**

**Key words:** Moral imagination, discerning moral issues, developing alternatives, mutual benefit, empathy, dogmatism, egotism, social corporate responsibility (CSR), non-government organization (NGO), structural equation modeling (SEM), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), non-normed fit index (NNFI), root mean square residual (RMSR), comparative fit index (CFI), root mean square error of approximation (RMSEA)

## INTRODUCTION

Business industry has witnessed the outcomes of bad moral decisions taken by business leaders. Enron's story is only one example of the recent corporate scandals and cases of bad moral decisions, which have not only shaken the public trust in corporations, but have also affected the bank accounts of investors and employees. Before the bankruptcy of Enron, it was included in one of the Fortune 500 companies, and after its fraudulent

accounting case, its share went down to \$1 (Enron Scandal, 2010; PBS, 2002; Godwin, 2006; 2008). "It has always been known that heedless self-interest was bad morals, but it is now known that it is also bad economics" (Franklin Delano Roosevelt in Godwin, 2008: 17; Good Money and Quotes, 2010).

The "bad apples" who create fraud are now facing prison terms, although they are not morally bad, they just face this because of their limited conceptual schema and do not consider moral values while making decisions. Mostly, managers are known for moral values, and they are not greedy and egoists, but the underlying issue is that they have narrow perspective on a particular situation

\*Corresponding author. E-mail: [sobia.mahmood1@gmail.com](mailto:sobia.mahmood1@gmail.com).  
Tel: +923215342940.

so that they do not view the moral consequences of their decisions. They actually lack the ability to imagine a range of possible issues, consequences and solutions. So, just because of their shorter insight, they make wrong moral decisions which later give undesirable impacts to society and business as well (Godwin, 2006, 2008; Werhane and Moriarty, 2009). The Enron example is one of the incidents in 2002 that catches a person's attention and becomes the great interesting news for different well known newspapers like CBS and PBS (CBS, 2002; PBS, 2002).

Business industry has also witnessed some business leaders who have taken such good moral decisions that resulted in mutual benefit to the company and wider society. The literature showed different instances of companies like the Seventh Generation, Fuji Xerox, or Green Mountain Coffee Roasters. These companies were getting huge profit margins and were also accepting their social corporate obligation. This only happens because of their leaders who make such decisions which lead to an increase in the profit margin and a creation of social mutual benefit (Godwin, 2006; 2008).

Some business leaders take good moral decisions and the reason behind that idea is that the core part of their business strategy is to create mutual benefit for both the wider society and their business as well. The growing desire of the top management is to find out ways to create mutual benefit for both the organizations and the stake holders, but the public still believes that companies are greedy entities which make decisions only in their self-interest, even at the cost of greater public welfare. It is the utmost obligation of the companies to discern the social issues while making the decisions and must know their social corporate responsibility (Yashiro et al., 2008; Godwin, 2006, 2008; Schwab, 1996; Werhane, 1998, 2002; Heath, 2008; Mehalik and Gorman, 2006).

Morality is basically the individual's perception of what is "good" or "right." Human behaviours are determined by the environment. What ever behavior they put up is just because of its environmental factors (Rest, 1994). Moral imagination is the mental ability to create or use ideas, images, discern moral aspects implanted within a situation and develop a range of possible solutions of the situation from a moral point of view (Werhane, 1998, 2002; Heath, 2008; Mehalik and Gorman, 2006).

Werhane (1998) elaborately presented the idea of moral imagination as a person's ability to discern and understand a particular situation with all its possible dimensions. Moreover, none of the solutions should be contextualized. The solutions should be evaluated from all angles, keeping in mind the moral aspects of those who do not bring forth aftermaths on humanity. If an individual is morally imaginative, then he will be able to stimulate his careful approach that stimulates new thinking on the situation, a negative response of scripts, and the noticing of ethical consequences (Caldwell and

Moberg, 2007).

In Pakistan, Pakistan Easy Paisa is one of the biggest examples of moral imagination and management decision-making. This came in existence with the joint venture of Telenor, Telecommunication Company and Tameer bank. Easy Paisa helps the poor, especially in getting the salary of their kids on time and villagers can also transfer money through this scheme (Easy Paisa, 2010). The concept behind this scheme was to accept their social corporate responsibility and work for the benefit of the society in such a way that it will give benefit to the company also. Usually, decision makers do not discern such kind of issues and do not think that this may be a big issue for the society. It is the utmost obligation of any decision maker to discern the moral issues and look into their consequences and then come up with the solutions instead of waiting for others to come and solve the situation.

### Research purpose

In this research, management decision makers were taken into consideration to dig out the factors that are affecting the decision-making process of management. The literature does not depict any research study of moral imagination and management decision-making by focusing on Pakistan. Therefore, this study intends to fill the knowledge gap that exists in the mentioned areas.

### LITERATURE REVIEW

The concept of corporate social responsibility (CSR) has evolved over the last few decades. Ideology beneath these theories is that, business is responsible for satisfying the values and demands of the society in which it operates (Yashiro et al., 2008). So, it should be the core responsibility of upper management towards social expectations to develop methods and ways of corporate response (Yashiro et al., 2008).

Managers should keep an eye on all the legitimate stakeholders concern while making decision and operation. The role of top management is very much important because it shapes and implements corporate actions; it also brings an ethical culture to better understand their corporate social responsibility (CSR). It is the utmost duty of top-management to scan their environment because it tells the trends and events going on there. Constant communication of external environment helps in environmental scanning. The perception of management about any particular problem helps in taking any decision and if they are morally imaginative, then it affects the decision-making process. Knight at Nike and Jayapal at Adidas are one of the instances of moral imaginative decision for labour practices where respect of human rights was their

core strategy (Yashiro et al., 2008; Park, 2010).

Werhane (2008) approach to decision-making adds a new dimension for top management and managers who are involved in ethical issues and who are interested to seek these out. The moral responsibility of management is to have a keen sight on ethical issues and solve these with their imaginative thinking and come up with new possibilities, but the vital thing required in decision-making process is to discern these issues. A sounder moral thinking and judgment is possible through moral imagination (Dunn and Schaeffer, 2008; Werhane, 1998, 2002; Heath, 2008; Werhane and Dunham, 2002). If the decision-makers will integrate their creative thinking with moral and ethical values, then the better consequences of their decisions can be achieved (McVea, 2004). Imaginative thinking process is required from decision makers to see the underlying issues present within the context.

To be morally imaginative, one should have a broader view to look into the multiple perspectives of the issues and then come up with different possibilities. When developing moral imagination, while making decisions, one should become sensitive to ethical issues. It also means to search out possibilities from which people are likely to be hurt by decision-making or the behaviour of managers (Werhane, 1998, 2002; Heath, 2008; Werhane and Dunham, 2002; Mehalik and Gorman, 2006). So the business leaders who are making decisions should have moral awareness of the fact that their decision will affect their stake holders.

According to Caldwell and Moberg (2007), moral imagination is attached with the concept of moral sensitivity, perspective-taking and the creation of fresh alternatives. The person with high degree of moral identity is the one who is known for "ethical thoughts feelings and behaviors" (Caldwell and Moberg, 2007). Moral sensitivity is the ability to recognize the moral consequences of their decision and how a person's decision will affect the welfare of others. Moral imagination stimulates the decision-maker to break the mental model and think out of the black box a decision that will benefit the wider society (Rest, 1986 in Moberg and Seabright, 2000). According to Schrag (1979), four ideas, regarding what adopting a moral point of view implies for a school administrator, are given as follows:

- (1) A moral agent should stick to the moral principles even though he would also be affected.
- (2) It is the duty of the moral agent to evaluate the consequences of its decisions and to critically analyze the welfare and interests of all those who might be affected by his/her decision or action, including himself/herself.
- (3) It is the utmost responsibility of the moral agent to support his/her decision with the help of all the relevant comprehensive information.
- (4) A careful moral agent's moral judgments are narrow. He analyzes the situation from all dimensions and then

come up with the conclusion that he gives all the possible alternatives to the problem. A moral agent should perform his obligation carefully otherwise it will affect the wider society.

The role of management depicts that the mental model of the people is that, if there is no return on investment or less chances of pay back of money, then no one is willing to invest money. However, moral imagination requires that a person should disengage himself from other mental model, think more creatively within the constraints of what is morally possible and deals with possibilities that are practical and implantable. Moral imagination is not possible with the individual's imagination that is possible only with the integration of the systems. It is a facilitating mechanism that may encourage a sounder moral thinking and judgment (Werhane, 1998, 2002, 2002, 2006; Heath, 2008; Werhane and Dunham, 2002; Mehalik and Gorman, 2006; Senge, 1990). For creating mutually beneficial decision, moral imagination of all the business partners is required because they will not be able to give wider benefit to the society otherwise.

Today's fast-moving markets and intensified global competition create radically different and more difficult environment for business leaders. For attaining and sustaining the competitive edge, moral imagination helps not only in improving the ethical performance of firms, but also serve as a creative problem solving technique that managers and management scholars can use. The goal of the manager and firms should be to do more ethically satisfying outcomes to business decision-making processes (Schwab, 1996; Werhane and Dunham, 2002; Mehalik and Gorman, 2006; Yashiro et al., 2008). Moral imagination can improve the thinking process of an individual and increase the productivity of the business by creating mutually beneficial decision. According to Young (2008), advisory panels and committees should be present in the organization that will guide uncertain and critical situations. These panels and committees can help them through dialogue on ethical issues and the technique used for this purpose will be intranet.

Usually, bankers take decisions on financial grounds instead of taking some morally imaginative decisions, whereas entrepreneurs take decisions imaginatively (McVea, 2009) and are always in search of creative solutions to what appeared as intractable problems. With the advancement in technology, the ethical and moral issues are increasing with high pace, so there is a need to have a foresight of the decision makers to lessen the moral consequences of their decision. Managers usually have mental models and before taking any decision, they always think about the financial risk of the particular project instead of thinking of their social obligation, so they do not go beyond their mental model, whereas entrepreneurs have creative thinking and it worked for them in uncertain conditions. There is need for the

entrepreneurs to incorporate their creative thinking with moral values. Researches show that entrepreneurs have high degree of moral imagination. Moral imagination possibly will enhance the understanding of ethical decision-making (McVea, 2004).

Moral imagination cheers up and strengthens the overall creative process and is associated to practical management. The concepts of business ethics support, enhance and deepen the understanding of business problems and expand the scope of problem-solving approaches for managers (Werhane and Dunham, 2002; Mehalik and Gorman, 2006). Bankers never want to take such type of decisions where there is less chance of 'return on investment'. If they know their social corporate responsibility, then moral imagination helps in discerning the moral issues. After discerning these issues, they take some substitute to solve the situation. Systems thinking pre-suppose that most of our thinking, experiencing, practices and institutions are inter-related and inter-connected. Mental model is one of the boundaries in systems thinking which means human beings have mental pictures of their experiences that model the stimuli with which they are interacting, and these are frameworks that set up parameters through which experience, or a certain set of experiences, is organized (Senge, 1990; Werhane, 2002, 2006).

Eskom, a government owned electric company of South Africa was governed by strict apartheid laws. As a result, rural South Africa, which is mostly black and poor, was never electrified and they have the mindset that return on investment might be negative in those areas. Before the end of the apartheid, the company began to evaluate its practices and concluded that they did not work for non-whites. They stepped back from its traditions and practices and re-evaluated itself and its mission, and began to develop a new mental model of what it should be as a national power company. Finding a weakness in the system, Eskom began training non-whites for supervisory positions and changed its own mindset (Werhane, 2002; Eskom, 2010a, 2010b). This kind of act and imaginative thinking process is required for management decision makers to discern the moral issues that no one else has seen and then take suitable alternatives accordingly. Another one of the good examples that depicts the morally imaginative thinking process of management is Grameen Bank.

The Bangladesh Bank is the national government owned bank, which controls the inflow of money into the country. The Bangladesh Bank lends money only to those who have good credit ratings, property, capital, or other collateral or demonstrated assurances. Most of the population of Bangladesh does not own all this. So the poor and the poorest of the poor remain so, because of financial systemic requirements of the system. Muhammad Yunus is a U.S. trained economist and a former employee of the Bangladesh Bank. He and his

students discovered the problem and found a solution to it. So, with the permission of the Bangladesh Bank, Yunus started the Grameen Bank with the philosophy of lending money only to those without capital or property. Almost half of the Grameen members are now economically above the poverty line (Werhane, 2002; A short history of Grameen Bank, 2010; Grameen Bank, 2010).

Moral imagination is a creative process in which managers merge their personal and moral values while making decision. By engaging employees in this process, their commitment will be increased because they serve themselves in finding the solutions of the critical dilemmas. Moral imagination depicts one's moral values. The development of the skills, methods and approaches necessary for moral imagination should be encouraged to foster an environment that allows moral imagination to flourish in organizations (Werhane and Dunham, 2002; Mehalik and Gorman, 2006). Organizations must focus on the element of creating moral awareness in their employees so that they feel their work as a moral obligation. By this practice, the critical dilemma faced by organizations can be minimized. Moral imagination is essential for making good quality plan and business decisions that lessens the chances of failures (Werhane, 1998). The roots of the deepest moral values are detected by moral imagination. Most of the moral values adopted are from the Pakistani culture that might be good or bad, but that adds new experiences to life. So there is need not to bind anyone while taking any decision, but that should always think out of the black box and try to change the mental model. By doing this, there is a chance that the individual can think imaginatively outside cultural constraints and can come up with better solutions. While taking any decision, if an individual considers the ethical views and expressions of experts and practitioners, the moral agent will be able to critically analyze the situation from all possible angles. After having a deeper insight to the problem, alternative strategies will be used to achieve the desired ethical outcomes (William and Greenfield, 2004).

Moral imagination can be affected by a number of factors. The entrepreneur's self-interest or his empathy with everyone or someone may also influence his imagination and may drive him to take unhealthy decisions. The factors are given as follows:

1. Empathy: It is the ability to imagine oneself in another person's situation. Adam Smith discussed that imaginative process is not essential for understanding the sentiments of others, but is important for moral judgment. If the feeling of one is same as the others, then a pleasing sentiment would be the result which leads to moral approval. One of the demands of moral conduct is to cultivate one's perception of the particularities of individuals and circumstances and develop one's empathetic abilities (Godwin, 2008; Davis, 1980).

**Table 1.** Operational definitions.

Topic	Definition
1. Empathy	It is the ability to imagine oneself in another person's situation (Godwin, 2008)
2. Egotism	It is an over concentration on self-interest (Godwin, 2008).
3. Dogmatism	It is the belief that one should not question, but rather conform to, authority (be it religious, governmental, or another form of authority) (Godwin, 2008).
4. Developing	It is the ability to generate a range of alternative solutions to the situation from a moral perspective, synonymous with divergent/creative thinking (Godwin, 2008; Werhane, 1998, 2002).
5. Discerning	It is the ability to recognize the moral aspects within a situation, synonymous with moral awareness (Godwin, 2008; Werhane, 1998, 2002).
6. Moral imagination	It is the ability to discern the moral aspects embedded within a situation and develop a range of alternative solutions to the situation from a moral perspective (Godwin, 2008; Werhane, 1998, 2002).
7. Moral development	It is the process through which individuals develop moral reasoning and morally based attitudes and behaviours toward others (Godwin, 2008; Werhane, 1998).
8. Mutual benefit	The organization is profitable and working for the benefit of the society is strategically focused on both organizational self-interests and stakeholder interests (Godwin, 2008).

2. Dogmatism: It is the belief that one should not question, but rather conform to, authority (be it religious, governmental, or another form of authority). One needs to be firm according to his belief whether they are right or wrong. They do not have the right to argue on that. If an individual is having dogmatic behaviour, then he will always be limited to his belief and live within that boundary (Godwin, 2008; Drucker, 1986; Smallman, 1999). This kind of behavior will affect the moral imagination.

3. Egotism: It is an over concentration on self-interest. That kind of person likes his own personality and do not bother to think about consequences of his actions (Godwin, 2008; Smallman, 1999). For creating mutually beneficial decision-making, individuals should not have that kind of behaviour because it blocks their creative thinking process also.

The operational definition of all variables has been presented in Table 1.

## CONCEPTUAL FRAMEWORK

Based on the literature review, the conceptual frame work was designed. To analyze the complex relationship between the variables, the Structure Equation Modelling (SEM) methodology was used. SEM was used to expose items that pertain to separate factors, but overlap in the ordinate. SEM analyzes the error terms, which provides additional information and enhances power. In addition, SEM presents many fit indices, which can be used to ascertain which variables should be included (Suhr, 2006; Teo and Khine, 2009; Jackson et al., 2005; Hooper et al., 2008; Hoe, 2008; Stephenson et al., 2006). The observed variable discerning moral issues and developing

alternatives will predict the mutual benefit's latent variable, while the observed variable of the organization type and age will predict the latent demographic variable. These variables will be calculated using the relevant items as a result of the factor analysis carried out on the items, with the data collection tool, which tend to explain the purposes of moral imagination on mutual beneficial decision making. The equation for path analysis is as follows:

### Measurement paths

$$Z_1 = \beta\Gamma_{11} Y_1 + \beta\Gamma_{12} Y_2 + \beta\Gamma_{13} Y_3 + E_1 \quad (1)$$

$$Z_2 = \beta\Gamma_{21} X_1 + \beta\Gamma_{22} X_2 + E_2 \quad (2)$$

$$Z_3 = \beta\Gamma_{34} Y_4 + \beta\Gamma_{35} Y_5 + E \quad (3)$$

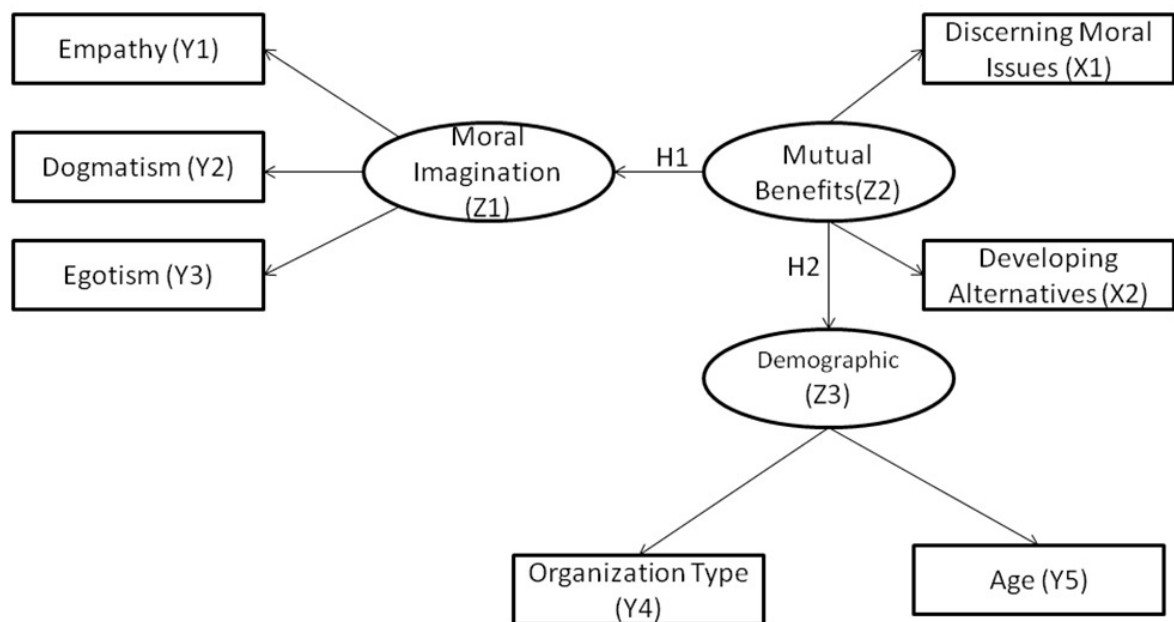
### Structural paths

$$Z_2 = \beta\Gamma_{21} Z_1 + \beta\Gamma_{23} Z_2 + E_2 \quad (4)$$

The purpose of this research study is to examine the empirical influence of moral imagination ( $Z_1$ ) on empathy ( $Y_1$ ), egotism ( $Y_2$ ) and dogmatism ( $Y_3$ ); influence of demographic on age ( $Y_4$ ) and organization type ( $Y_5$ ); influence of mutual benefit ( $Z_2$ ) on discerning moral issues ( $X_1$ ), developing a range of alternatives ( $X_2$ ) on demographic ( $Z_3$ ), that is, age ( $Y_4$ ) and organization ( $Y_5$ ); and lastly, the influence of mutual benefit ( $Z_2$ ) on moral imagination ( $Z_1$ ). Figure 1 depicts the conceptual diagram.

## Research hypotheses

This research aims to investigate the association between moral imagination and management decision-making



**Figure 1.** Conceptual framework.

and its dependent factors. Therefore, based on the proposed conceptual framework, the following hypotheses were developed:

- H<sub>1</sub>: Empathy is significantly associated with moral imagination.  
 H<sub>2</sub>: Dogmatism is significantly associated with moral imagination.  
 H<sub>3</sub>: Egotism is significantly associated with moral imagination.  
 H<sub>4</sub>: Organizational type is significantly associated with demographic.  
 H<sub>5</sub>: Age is significantly associated with demographic.  
 H<sub>6</sub>: Discerning moral issues is significantly associated with mutual benefit.  
 H<sub>7</sub>: Developing alternatives is significantly associated with mutual benefit.  
 H<sub>8</sub>: Moral imagination is significantly associated with mutual benefit.  
 H<sub>9</sub>: Demographic is significantly associated with mutual benefit.

## METHODOLOGY

The research is a quantitative type because a survey based instrument was used to quantify the results.

### Population

The population for this research study was employees of all categories (top, middle and low) because all of them are decision-

making members who are involved in decision-making processes. Different types of organizations were targeted, that is, public, private, semi government and NGO (Non Governmental Organizations). The reason for targeting all these organizations is that this is the major variable that might be affecting the decision-making process.

### Measurement instrument

Research was conducted by survey method using questionnaire as this method is convenience in terms of mobility and time, that is, every element has an equal chance of being selected. The questionnaire was developed by taking the variable items from different literature. Discerning moral issues and developing moral issues related questions were taken from Godwin (2008) and another variable type of organization was taken from Park (2010). Before finalizing the questionnaire content validity, face validity and pilot testing was done. For descriptive analysis and hypotheses testing, SPSS and Lisrel software were used respectively (Usluel et al., 2008).

### Data collection

Simple convenient sampling was used for data collection. Two methods were adopted for data collection, like the questionnaire, and were web-based, so the respondents replied through the web link: <http://aarsol.com/erum/myproject/index.php>; by visiting respondents personally and through e-mails. Through online web-based questionnaire, only 23 respondents responded in three months duration. About 140 questionnaires were floated by personal visit and response was received from 90 respondents which made a response rate of 64% (Usluel et al., 2008).

**Table 2.** Reliability statistics.

S/n	Variable	Cronbach's $\alpha$
1.	Empathy	0.655
2.	Egotism	0.655
3.	Dogmatism	0.696
4.	Discerning moral issues	0.733
5.	Developing alternatives	0.771
6.	Mutual Benefit	0.828

### Sample

The sample was taken on a convenient basis from employees, managers and all decision-making members who were involved in the decision-making process that were from different types of organizations of Pakistan. The respondents were both males and females of different ages, belonging to any race, socio-economic status and background. In SEM, analysis was done on the basis of number of observation. The number of observations in SEM can be calculated as:

$$\text{No. of observation} = v(v+1)/2$$

In this equation,  $v$  is the number of variables in the model. So for this paper, there are 12 variables with a minimum sample size of  $5*6/2=15$ . A total of 113 responses were received through survey. According to the formula given in the equation, the required observation was 15, but 113 that were quiet enough for further analysis through SEM have been received. In SEM, the term dependent and independent becomes blurred and the term exogenous and endogenous variables are used instead.

In the propose model, empathy, dogmatism, egotism, discerning moral issues and developing alternatives are exogenous variables, while moral imagination acts as an endogenous variable. In SEM, another concept is of latent and observed variables. All those variables which are directly measured are known as observed variables and all those which are indirectly observed are latent variables (Jackson et al., 2005; Usluel et al., 2008).

In the proposed model, empathy, dogmatism, egotism, discerning moral issues and developing alternatives are observed variables, while moral imagination and mutual benefit are latent variables. SEM assesses the relationships that link the various factors. It can also be applied to differentiate direct and indirect relationships.

### Validity

The initial draft of the questionnaire was floated for the purpose of content validity, for which views were collected from the scholars, as well as potential respondents. Based on their view, various items were omitted, modified and even a few more questions, especially in egocentrism variable, were added. Content validity was done through nine scholars, five from academic experts and four from expert practitioners. After the changes recommended by scholars, the questionnaire was floated to different organizations for pilot testing. Data collected for pilot testing was checked for reliability.

The sample size for pilot testing was 15 and on the basis of results generated, internal consistency of the data was measured. It was found that all the variables met the cut of value 0.65, which was acceptable for retaining the variable, except the 3 items of empathy which were not meeting Cronbach value, so they were

discarded, that is, 1, 3 and 5 (Leech et al., 2005).

### Reliability

Reliability test was used to measure the internal consistency based on computed values of Cronbach alpha ( $\alpha$ ). It was found that all the variables met the cut of value 0.65, which was acceptable for retaining the variable (Leech et al., 2005). The table of correlation shows the correlation results. Cells having a value with \*\* show those variables which are highly correlated with each other at 0.01 level of significance, while cells having a value with \* show those variables which are highly correlated with each other at 0.05 level of significance. Table 2 shows the result.

The questionnaire consisted of 7 parts: demographic, (9 items), empathy (4 items), egotism (6 items), dogmatism (12 items), discerning moral issues (18), developing alternatives (8 items) and mutual benefit (5 items). The respondents were asked to reply on seven point Likert scale from strongly agree to strongly disagree (Likert Scaling, 2006). There was one open-ended question left for the respondent with the name comment which was liked by the respondents and they expressed their thought. Employees were requested to fill in the questionnaire.

### Factor analyses

The purpose of using factor analysis is to investigate the large number of relationships among inter-level variables. For factor loading, the principle component analysis method was used. Less than 0.40 of the items' values were omitted and were not used for further analysis (Leech et al., 2005). Table 3 showed that item 1, 2 and 8 from dogmatism; item 1, 3, 6 and 11 from discerning moral issues; and item 3 from the developing alternatives were removed. However, it showed the factor analysis.

KMO stands for Kaiser-Meyer-Olkin measure of sampling adequacy. It indicates sufficient items for each factor. All the values are found to be greater than 0.75, except empathy (0.549). If the value of Bartlett is less than 0.05, then it should be significant, indicating that the correlation matrix is significantly different from an identity matrix, in which correlations between variables are all zero (Leech et al., 2005). Table 4 shows the values of KMO and Bartlett's Test of spheric.

## RESULTS AND ANALYSES

### Descriptive analysis

The entire 113 respondents have responded through a web-based survey, by e-mails and visitation of respondents personally. The demographic data indicate that 78.8% were males and 21.2% were females. About 2.7% were having Diploma/Higher Graduate diploma level qualification, 13.3% were having Bachelor degree, 45.1% were having Masters degree, 29.2% were having MPhil/MS, 8% were having PhD and the remaining 1.8% were having other degrees. Conversely, 43.4% of the employees were permanent and 56.6% were contractual. All the three types of designation were involved like, 11.5% belong to top management, 67.3% belong to middle management and 21.2% belong to lower

**Table 3.** Factor analysis: Component matrix.

Variable item	Empathy	Egotism	Dogmatism	Discerning moral issues	Developing alternatives
1	0.93	0.758	0.338	0.75	0.769
2	0.541	0.75	0.632	0.705	0.702
3	0.909	0.55	0.126	0.299	0.276
4		0.745	0.561	0.627	0.539
5			0.454	0.467	0.773
6			0.489	0.534	0.698
7			0.445	0.533	0.478
8			0.736	0.743	0.782
9			0.67	0.652	
10			0.802	0.43	
11			0.32	0.237	
12			0.5	0.475	
13				0.449	
14				0.495	
15				0.617	
16				0.622	
17				0.382	
18				0.536	

**Table 4.** KMO and Bartlett's Test of Sphericity.

S/n		KMO	Bartlett's test
1.	Empathy	0.75	0.00
2.	Egotism	0.75	0.00
3.	Dogmatism	0.715	0.00
4.	Discerning moral issues	0.775	0.00
5.	Developing alternatives	0.812	0.00

management. Four types of organizations were involved, 20.4% of the respondents were from the government sector, 37.2% were from the private sector, 29.2% were from NGO and 13.3% were from the semi-government. A total of 68.1% were having 0 to 5 years experience, 15% were having 6 to 10 years experience and 16.8% were having above 10 years experience. Majority of the respondents were in the 20 to 30 age groups with 76 respondents (67.3%), while it was followed by the 31 to 40 age groups (22.1%) and 41 to 50 age groups (8%), and the least represented was the 60 and above age group with 1 respondent.

The distribution of respondents by their departments is as follows: accounting/audit/taxation (15.9%), IT/Software developing (12.4%), sales and marketing/call centre (8.8%), administration and human resource management (30.1%), technical and engineering (3.5%), and the remaining 29.2% belong to different departments. Table 5 shows the details.

## Correlation

Pearson correlation was used to check the correlation among the variables. Table 6 shows that all variables are associated with each other and have significant correlations (Leech et al., 2005). The results show that developing alternatives are highly correlated with empathy which means that if an individual is empathetic, then he will be able to develop alternatives to solve moral issues underlying in any situation. Also, empathy is significantly associated with discerning moral issues, that an individual will easily discern the moral issues. Organization type is also significantly associated with discerning moral issues and developing alternatives which depicts that whatever the organization type is, that is, Non-Government Organization (NGO), Government, Semi Government or private, will definitely affect the decision-making process. One of the interesting matters is that age is negatively associated with egotism which



**Table 5.** Frequency table: Descriptive statistics

Variable	Frequency	Percent
<b>Gender</b>		
Male	89	78.8
Female	24	21.2
<b>Qualification</b>		
Diploma/Higher Graduate diploma level	3	2.7
Bachelor degree	15	13.3
Master degree	51	45.1
MPhil/MS	33	29.2
PhD	9	8
Other	2	1.8
<b>Age</b>		
20-30	76	67.3
31-40	25	22.1
41-50	9	8
51-60	2	1.8
Above 60	1	0.9
<b>Department</b>		
Accounting/audit/taxation	18	15.9
IT/Software developing	14	12.4
Sales and marketing/call centre	10	8.8
Administration/human resource	34	30.1
Technical/engineering	4	3.5
Others	33	29.2
<b>Experience</b>		
0 - 5	77	68.1
6 - 10	17	15
Above 10	19	16.8
<b>Type of organization</b>		
Government	23	20.4
Private	42	37.2
NGO	33	29.2
Semi government	15	13.3
<b>Designation</b>		
Top	13	11.5
Middle	76	67.3
Lower	24	21.2
<b>Employment status</b>		
Permanent	49	43.4
Contractual	64	56.6

means that when age decreases, an individual has a greater chance of becoming egotist and when age increases, he has a lesser chance of becoming egotist.

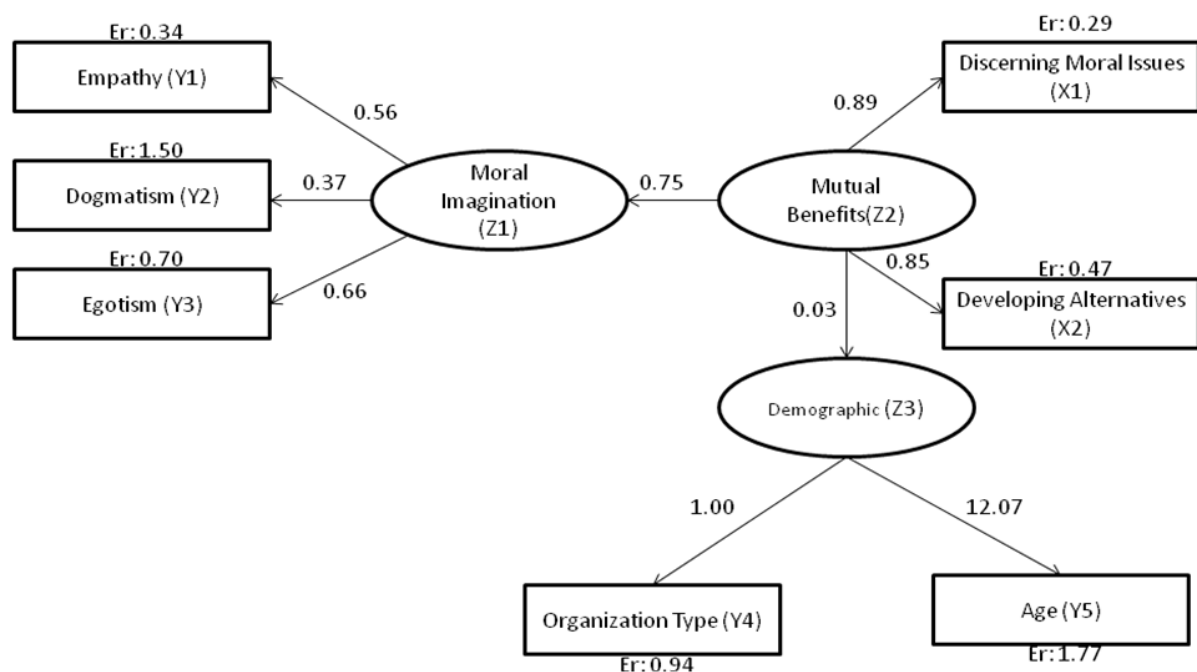
### Hypotheses and model testing

A structural equation modeling technique was used to

**Table 6.** Correlation.

		X <sub>1</sub>	X <sub>2</sub>	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>	Y <sub>4</sub>	Y <sub>5</sub>
X <sub>1</sub>	Discerning moral issues	1						
X <sub>2</sub>	Developing alternatives	0.578**	1					
Y <sub>1</sub>	Empathy	0.251**	0.232*	1				
Y <sub>2</sub>	Dogmatism	0.133	-0.08	0.206*	1			
Y <sub>3</sub>	Egotism	0.289*	0.254*	0.244*	-0.048	1		
Y <sub>4</sub>	Age	-0.057	-0.18	-0.064	0.078	-0.266**	1	
Y <sub>5</sub>	Organizational type	0.269**	0.301**	0.051	-0.218*	0.051	-0.175	1

Correlation is significant at the 0.01 and 0.05 levels (2-tailed).


**Figure 2.** Model testing results of the rejected model.

test the model. The LISREL 8.80 program was employed for this purpose (Usluel et al., 2008; Teo and Khine, 2009; Jackson et al., 2005; Hooper et al., 2008; Hoe, 2008; Stephenson et al., 2006; Zaheer et al., 2010). The model testing results are shown in Figure 2. It was found that mutual benefit has direct impact on moral imagination. The observed variables used to predict the latent variables in the structural equation modeling were obtained by processing the data in the instrument (Usluel et al., 2008; Suhr, 2006; Teo and Khine, 2009; Jackson et al., 2005; Hooper et al., 2008; Hoe, 2008; Stephenson et al., 2006). The variables (egotism, dogmatism and empathy) predict the latent variable “mutual benefit” that was calculated using the relevant items as a result of the factor analysis carried out on the items, in the data collection

tool, which tend to explain the purposes of mutual benefit on moral imagination. The value of chi-square is 10.86 and the degree of freedom is 4 according to Usluel et al. (2008). The chi-square will be divided by the degree of freedom, and then the results generated will be less than 3 (that is, 2.72) which show that the model is significant. The value of p is also significant because it is less than 0.05. Figure 3 shows the recommended model. Seven fit indexes which are commonly used in the literature ( $\chi^2/d.f.$ , GFI, AGFI, NNFI, CFI, RMSR and RMSEA) were employed to test the model fit index. According to Usluel et al. (2008), the best fit was acquired when all the seven fit indexes met the cutoff values that were acknowledged in the literature. The commonly used measures of model fit, based on results from an analysis of the structural model,

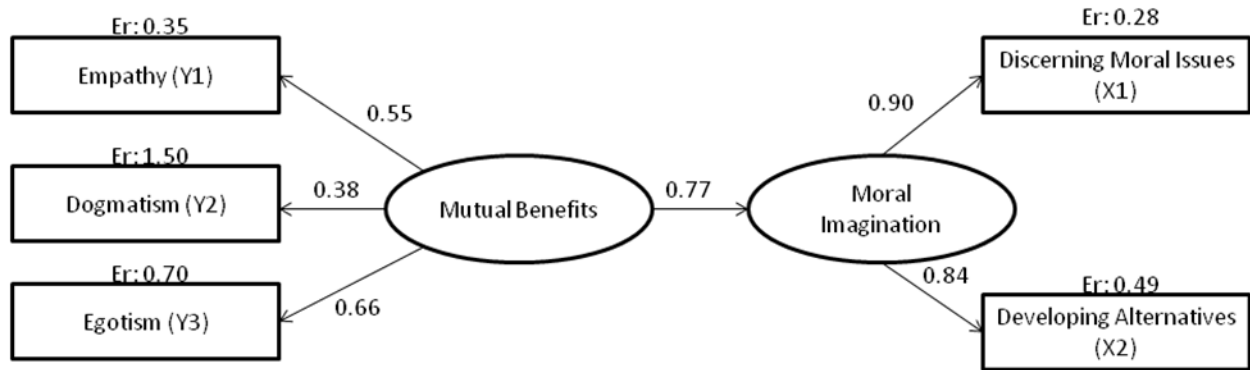


Figure 3. Model testing results of the recommended model.

Table 7. Seven fit indices.

Fit index	Recommended observed value	Observed value
Chi-square/ degrees of freedom	$\leq 3.00$	< 2.72
GFI	$\geq 0.90$	> 0.96
AGFI	$\geq 0.80$	> 0.86
NNFI	$\geq 0.90$	> 0.90
CFI	$\geq 0.90$ or $\geq 0.95$	> 0.96
RMSR	$\leq 0.10$	< 0.068
RMSEA	$\leq 0.06$ or $\leq 0.08$	< 0.042

GFI = Goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NNFI = non-normed fit index; CFI = comparative fit index; RMSR = root mean square residual; RMSEA = root mean square error of approximation.

are summarized in Table 7. In practice, Chi-square/degrees of freedom less than 3; GFI, NNFI and CFI greater than 0.9; AGFI greater than 0.8; RMSR less than 0.1 and RMSEA less than 0.06 or 0.08 are considered indicators of good fit. As seen in the table, all goodness-of-fit statistics are in the acceptable range (Usluel et al., 2008; Suhr, 2006; Teo and Khine, 2009; Jackson et al., 2005; Hooper et al., 2008; Hoe, 2008; Stephenson et al., 2006). Table 7 shows the seven fit indexes of the model. The estimate or coefficients results are shown in Figure 2.

The observed variables (empathy, dogmatism, egotism, discerning moral issues and developing alternatives) were used to predict the latent variables (moral imagination and mutual benefit) in the structural equation modeling. Table 8 shows the coefficients: standard error, error variance, t value and p value and describe the acceptance and rejection of the hypothesis. The results of  $H_1$  show that empathy is significantly associated with moral imagination as the coefficient is 0.31 with  $t = 4.68$  and  $p = 0.00$ . Therefore, hypothesis 1 is accepted when empathy plays a significant role in measuring moral imagination.

$$\text{Empathy} = 0.56 * \text{moral imagination} + 0.073 \quad (5)$$

The results of  $H_2$  show that dogmatism plays a significant role in calculating moral imagination as the coefficient is 0.37 with  $t = 7.31$  and  $p = 0.00$ . Therefore,  $H_2$  is accepted when dogmatism plays a significant role in measuring moral imagination.

$$\text{Dogmatism} = 0.37 * \text{moral imagination} + 0.21 \quad (6)$$

The results of  $H_3$  show that egotism plays a significant role in calculating moral imagination as the coefficient is 0.66 with  $t = 5.81$  and  $p = 0.000$ . Therefore,  $H_3$  is accepted when egotism plays a significant role in measuring moral imagination.

$$\text{Egotism} = 0.66 * \text{moral imagination} + 0.12 \quad (7)$$

The results of  $H_4$  show that the organization type plays a significant role in calculating demographic as the coefficient is 1.00 with  $t = 8.37$  and  $p = 0.00$ . Therefore,  $H_4$  is accepted when the organization type plays a significant role in measuring demographic.

**Table 8.** Results of model testing.

Variable	Estimate	Standard error	Error variance	t test	p-value	Accepted/Rejected
H <sub>1</sub> -Y <sub>1</sub> (Empathy)	0.56	0.073	0.34	4.68	0.00	Accepted
H <sub>2</sub> -Y <sub>2</sub> (Dogmatism)	0.37	0.21	1.5	7.31	0.00	Accepted
H <sub>3</sub> -Y <sub>3</sub> (Egotism)	0.66	0.12	0.7	5.81	0.00	Accepted
H <sub>4</sub> -Y <sub>4</sub> (Organization type)	1	0.11	0.94	8.37	0.00	Accepted
H <sub>5</sub> -Y <sub>5</sub> (Age)	12.07	1.5	1.77	1.19	0.236	Rejected
H <sub>6</sub> -X <sub>1</sub> (Discerning moral issues)	0.89	0.11	0.29	2.67	0.008	Accepted
H <sub>7</sub> -X <sub>2</sub> (Developing alternatives)	0.85	0.11	0.47	4.15	0.00	Accepted
H <sub>8</sub> -Moral-Mutual benefit	0.75	0.062	0.44	7.1	0.00	Accepted
H <sub>9</sub> - Demographic-Mutual benefit	0.025	0.0053	-0.0084	-1.57	0.115	Rejected

$$\text{Organization type} = 1.00 * \text{Demographic} + 0.11 \quad (8)$$

The results of H<sub>5</sub> show that age plays a significant role in calculating demographic as the coefficient is 12.07 with t = 1.19 and p = 0.236. Therefore, H<sub>5</sub> is rejected when age does not play a significant role in measuring demographic

$$\text{Age} = 12.07 * \text{Demographic} + 0.15 \quad (9)$$

The results of hypothesis 6 show that the organization type plays a significant role in calculating demographic as the coefficient is 0.89 with t = 2.67 and p = 0.008. Therefore, hypothesis 7 is accepted when the organization type plays a significant role in measuring mutual benefit.

$$\text{Discerning moral issues} = 0.89 * \text{mutual benefit} + 0.11 \quad (10)$$

The results of hypothesis 7 show that developing alternatives play a significant role in calculating mutual benefit as the coefficient is 0.85 with t = 4.15 and p = 0.000. Therefore, hypothesis 7 is accepted when the developing alternatives play a significant role in measuring mutual benefit

$$\text{Developing alternatives} = 0.85 * \text{mutual benefit} + 0.1 \quad (11)$$

The results of hypothesis 8 show that moral imagination plays a significant role in calculating mutual benefit as the coefficient is 0.75 with t = 7.1 and p = 0.000. Therefore, hypothesis 8 is accepted when the moral imagination plays a significant role in measuring mutual benefit

$$\text{Moral imagination} = 0.75 * \text{mutual benefit} + 0.062 \quad (12)$$

The results of H<sub>9</sub> show that demographic plays a significant role in calculating mutual benefit as the coefficient is

0.025 with t = -1.57 and p = 0.115. Therefore, hypothesis 9 is rejected when demographic does not play a significant role in measuring mutual benefit. As a result,

$$\text{Demographic} = 0.025 * \text{mutual benefit} + 0.0053.$$

The same validated the results given by Godwin (2008) and Park (2010). The results showed that mutual beneficial decision-making have strong direct impact on moral imagination, whereas mutual beneficial decision-making has no impact on demographic. That is why the recommended model is different from that of the study's model. In the recommended model, demographic is taken out from the model, so the value of (β) is changed, which is now (β) = 0.75. Figure 3 shows the recommended model.

## DISCUSSION

The findings of the study are in coherence with the immense number of studies, but particularly the findings of this study are in line with the study of Godwin (2008), because according to his study moral imagination and mutual benefit are significantly associated. Godwin's (2008) study was done in the United States, but the results resembled that of the study which showed that the moral imagination behaviour of the United States' respondents is in coherence with the respondents living in Pakistan. Their cultural and moral values are totally different from Pakistan because Pakistan is a Muslim state. The reason behind this may be due to the fact that the targeted population was from Islamabad and Rawalpindi city, and that they usually come from different cities of Pakistan and live there for job purposes, so they do not have strong cultural and moral norms.

According to the study's model, empathy, egotism and dogmatism have a relationship with moral imagination. If the person is empathetic, then he will be able to feel the

pain of the people falling in the particular situation and can discern the moral issues lying in the situation; whereas, the egocentric person will never be able to discern any kind of moral issues because he likes his own personality, never bothers to think about other people falling into trouble and never wants to take the risk of spending his money to take them out from that situation. In that kind of situation, there are less chances of profit so no one thinks to go for that. So that is what all the organizations are doing, that is, if there are no mutual benefits and no chances of return on investment, then they will not invest their money on that project.

Dogmatic people are totally different from both, that is, empathetic and egocentric because their belief is that one should not question, but rather conform to authority. Although the authority might be religious, governmental, or another form of authority, they have to accept that belief at any cost. That is why they do not have diverged thinking and their imagination is limited and bound. Results show that egocentrism, dogmatism and empathy have a relationship with moral imagination which results in mutually beneficial decision-making.

The conceptual framework of Godwin (2008) has been modified and few more variables were added up in the model that might be affecting the mutually beneficial decision-making process, that is, age and organization type, but the results of the Pakistani culture show that demographic has no significant relationship with mutually beneficial decision-making. So the findings of this study are in line with the Godwin's (2008) study that was done in a totally different culture.

## IMPLICATIONS

The investigation of this study raises many interesting implications for business, research and education. This study has contributed in creating knowledge. Two conceptual frameworks, Godwin (2008) and Park (2010), were adapted and modified with the addition and deletion of few variables according to the requirement of the study. Another key contribution is the development of the research instrument that addresses the concepts, which are supported by acceptable values of reliability and validity from experts.

This study is very beneficial from the managerial point of view because practitioners can consider three dimensions, that is, egotism, empathy and dogmatism in management decision-making, which will play a significant role in increasing the productivity of the organization.

It can also help in assessing the mutual beneficial decision-making because mutual beneficial upshot is only possible, if a culture that foster the individual's aptitude to discern moral issues and build up alternatives has to be

created. With the help of this organization, it will be possible to prop up such types of outcome. In moral imagination, the core notion is to nurture the capability to discern moral issues because this helps in fostering the mutually beneficial outcome. Moral awareness and imaginative thinking is required for an individual to discern moral issues and for creating that ability in an individual. So trainings, workshops and other mentoring and coaching programs should be organized to help raise and cultivate moral imagination.

This study, besides its academic worth, has its managerial implications as well. For business education, such kind of case studies are added up in the curriculum that raises the students' ability to discern moral issues underlying in any situation (Godwin, 2008). Case studies should be given to students to increase their ability. For cultivating moral awareness, the students should be given different tasks, that is, creating donations for charity by arranging functions and blood camps in institution.

On the other side, there is some responsibility of the institutions that they must revise their academic programs and must add up some moral awareness courses like, business and ethics, and social corporate responsibility. By doing all this, the fraudulent scandals can be minimized and the social corporate responsibility can be increased and they will be able to give more preference to others with wider social benefit. Normally, business organizations give preference to their own needs and wants instead of their stakeholders and they give more preference to the strategic interest of their businesses. This research study helps in knowing the factors that have some impact on moral imagination and in creating mutually beneficial decisions.

## LIMITATIONS

The present study which is a modification of the study of Godwin (2008) was limited to the organizations in Rawalpindi/Islamabad because of the time and cost constraint. Hence, the findings cannot be generalized to the every type of industry in Pakistan. This requires further research to have a clear and broader picture of the relationship and factors that affect the moral imagination and mutual benefit. The sample size was limited due to time and financial constraint; however, the response rate was good enough. It is believed that the non-response bias has not unsubstantiated the results of this study. Nonetheless, generalizing the results to other Asian Countries may not be a wise idea as the economic and political situations are very much different among the third world countries. One of the biggest constraints encountered while doing the research was that very few empirical studies were found on that topic which created a problem.

## FUTURE RESEARCH PROSPECTS AND CONCLUSION

This study can be enhanced by further targeting different cities of Pakistan because moral behaviour varies with cultural values, but of course, it will certainly need more time and financial resources. It can also be used to find out why demographic has no significant relationship with mutual benefit; thus, the underlying factors of this can be dug out. An important finding is that demographic has no relation with mutually beneficial decision-making. This issue needs to be highlighted and worked upon in future research. Time constraint and cost of surveying were the biggest limitations in conducting the study. Unfortunately in Pakistan, there is no research environment, and that is the biggest hindrance in producing quality results. However, the responses and e-mails of the top management which were received on daily basis showed that there is hope for a good quality research in the future, because they asked for findings to know the factors that were the main hindrance in taking mutually beneficial decision.

The future research area should closely monitor the relationship between demographic and moral mutually beneficial decision-making. The study has not analyzed the impact of other variables which may also influence the mutually beneficial decision-making through moral imagination. These variables could include designation and status of employees, that is, permanent or contractual. So there is need to work upon that which may have been contributed. By exploring these factors, new dimensions of research can be generated. On the basis of results generated, it was concluded that demographic does not have any impact on the mutually beneficial decision-making. So that is why after doing the analysis through SEM, the software discarded the demographic from the model.

This research elucidates that organizations must focus on how they can create mutual benefit. By doing this, the productivity, efficiency and the repute of the organizations will be enhanced in the market and their market share will be increased also. The results from the respondents depict that mutually beneficial outcome is possible only by discerning the moral issues in any particular situation, and after discerning it, a trial should be made to develop some alternatives that will be beneficial for the company and which will have a wider social benefit also.

The study has not analyzed the impact of other variables which may also influence the mutually beneficial decision-making process. In future, the model can be further improved by the addition and testing of relevant variables and then finding out the effect on moral imagination of the decision-making process. A new instrument was developed to measure the impact of moral imagination on mutually beneficial decision-making. However, the instrument helped to quantify the results and finding

of the research. Therefore, this study helped in filling the knowledge gap that existed in such mentioned areas, particularly in places where no empirical research was done on that topic. So, the objective of the study is related to the entire hypothesis given as follows:

H<sub>1</sub>: Mutual benefit is significantly associated with moral imagination.

H<sub>2</sub>: Mutual benefit is significantly associated with demographic, that is, organizational type and age.

Findings in this study complement previous studies (Godwin, 2008; Werhane, 2002; Park, 2010; Werhane and Moriarty, 2009; Heath, 2008; Werhane and Dunham, 2002).

## ACKNOWLEDGEMENTS

"In the Name of Allah, the Most Beneficent, and the Most Merciful. All the praises and thanks be to Allah, who we worship, and who we ask for help, guide us to the straight way" (Surat Al-Fatihah; Al-Quran). "Glorified be your Lord, the Lord of Honor and Power" (Surat As-Saffaat; 180, Al-Quran). The authors wish to praise the Almighty Allah Who bestowed His countless blessings upon them and empowered them to accomplish the task successfully. Also they are giving special thanks to Lindsey Godwin who helped them a lot in this research. Lastly, they offer their regards and blessings to their parents and all those who supported them in any aspect during the completion of the project, like Mr. Jahanzeb, Mr. Shahzad, Miss Jamila and Mr Mirza Waseem Abbas.

## REFERENCES

- Banking for the poor: Grameen Bank (2010). A short history of Grameen Bank. Available: [http://www.grameen-info.org/index.php?option=com\\_content&task=view&id=19&Itemid=114](http://www.grameen-info.org/index.php?option=com_content&task=view&id=19&Itemid=114) (Accessed 06 March 2010).
- CBS (2002). Poll: Little faith in big biz. New York. Available: <http://www.cbsnews.com/stories/2002/07/10/opinion/polls/main514732.shtml?tag=mncol;lst;1> (Accessed 06 March 2010).
- Caldwell D, Moberg D (2007). An exploratory investigation of the effect of ethical culture in activating moral imagination. *J. Bus. Ethics.* 73(2): 193-204.
- Davis MH (1980). A Multidimensional Approach to Individual Differences in Empathy. *JSAS Catalog of Selected Documents in Psychology.* 10:85.
- Dunn CP, Schaeffer L (2008). Entrepreneurship, Ethics of Encyclopedia of Business ethics and society. 5(1): 724-729.
- Drucker PF (1986). *Management: Tasks, Responsibilities, Practices.* 1st edn. Truman Talley Books/ E.P. Dutton. New York. ISBN: 0-525-244-63-8.
- Easy Paisa (2010). Available: <http://www.easypaisa.com.pk> (Accessed: 06 June 2010).
- Erickson DA, Reller TL (1978). *The Principal in Metropolitan Schools.* McCutchan Publishing Corporation, 2526 Grove Street, Berkeley, California
- Enron Scandal (2010). Available: [http://en.wikipedia.org/wiki/Enron\\_scandal](http://en.wikipedia.org/wiki/Enron_scandal) (Accessed 06 June 2010).

- Eskom (2010a). Available: <http://en.wikipedia.org/wiki/Eskom> (Accessed 06 March 2010).
- Eskom (2010b). Company Information. Available at: [http://www.eskom.co.za/live/content.php?Category\\_ID=14](http://www.eskom.co.za/live/content.php?Category_ID=14) (Accessed 06 March 2010).
- Good Money and Quotes (2010). Available: <http://webcache.googleusercontent.com/search?q=cache:9Alz8W7woyQJ:www.goodmoney.com> (Accessed 06 June 2010).
- Godwin LN (2006). Creating Mutual Beneficial Possibilities: Theorizing Factors that Impact an Individual's Capacity for Moral Imagination. BAWB Interactive Working Paper Series. 1(1): 32-46.
- Godwin LN (2008). Examining the impact of moral imagination on organizational decision-making. Doctoral dissertation. Case Western Reserve University. USA: 1-160.
- Grameen Bank (2010). Available: [http://en.wikipedia.org/wiki/Grameen\\_Bank](http://en.wikipedia.org/wiki/Grameen_Bank) (Accessed 06 March 2010).
- Heath EF (2008). Moral Imagination, Encyclopedia of business ethics and society. 5: 1420-1421.
- Hooper D, Coughlan J, Mullen MR (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *Elect. J. Bus. Res. Methods.*, 6(1): 53 - 60.
- Hoe SL (2008). Issues and Procedures In Adopting Structural Equation Modeling Technique. *J. Appl. Quant. Methods.* 20(1):76-83.
- Jackson JL, Denzee K, Douglas K, Shimeall W (2005). Introduction to Structural Equation Modeling: Path Analysis. [Online]. Available: <http://www.sgm.org/userfiles/file/AMHandouts/AM05/handouts/PA08.pdf> (Accessed 06 June 2010).
- Jackson JL, Denzee K, Douglas K, Shimeall, W (2005). Introduction to Structural Equation Modeling: Path Analysis [Online]. Available at: <http://www.sgm.org/userfiles/file/AMHandouts/AM05/handouts/PA08.pdf> (Accessed: 06 June 2010)
- Leech NL, Barrett, CK, Morgan, GA (2005). SPSS for Intermediate Statistics; Use and Interpretation. 2nd edn. Lawrence Erlbaum Associates. Publishers, Mahwah: New Jersey. London.
- McVea JF (2004). A field study of entrepreneurial decision-making and moral imagination. *J. Bus. Vent.*, 24: 491-504.
- Mehalik MM, Gorman ME (2006). A Framework for Strategic network Design Assessment. Decision-making, and Moral Imagination. *Science. Technol. Hum. Values.*, 31: 289-307.
- Moberg DJ, Seabright M (2000). The Development of Moral Imagination. *Bus. Ethics Quart.*, 10: 845-884.
- Park H, (2010). Public pressure against sweat shops as perceived by top-management of apparel and footwear companies. *J. Fashion Mark. Manage.*, 14(2):300-311.
- PBS: Frontline (2002). Bigger than Enron. Available: <http://www.pbs.org/wgbh/pages/frontline/shows/regulation> (Accessed 07 June 2010).
- Research Methods: Knowledge Base (2006). Likert Scaling. Available: <http://www.socialresearchmethods.net/kb/scallik.php> (Accessed 07 June 2010).
- Rest J (1986). Moral development: Advances in research and theory. New York: Praeger.
- Schwab B (1996). Research Notes and Communication. A Note on Ethics and strategy: Do Good Ethics Always Make for Good B Business?. *Strateg. Manage. J.*, 17: 499-500
- Schrag F (1979). The principal as a moral actor in Erickson DA and Reller, T.L. (Eds), *The Principal in Metropolitan Schools*, McCutchan Publishing, Berkeley, CA.
- Senge P (1990). *The Fifth Discipline*, Doubleday, New York.
- Smallman C (1999). Knowledge Management as Risk Management: A Need for Open Governance. *Risk Manage.*, 1(4): 7.
- Stephenson MT, Holbert RL, Zimmerman RS (2006). On the Use of Structural Equation Modeling in Health Communication Research. *Health Commun.*, 20(2): 159-167.
- Suhr DD (2006). Exploratory or Confirmatory Factor Analysis?. *Statistics and Data Analysis*. [Online]. Available: <http://www2.sas.com/proceedings/sugi31/200-31.pdf> (Accessed: 06 June 2010).
- Teo T, Khine MS (2009). *Structural Equation Modeling in Educational Research: Concepts and Applications*, Sens Publisher. [Online]. Available: <https://www.sensepublishers.com/files/9789087907891PR.pdf> (Accessed 06 June 2010).
- Usluel YK, Aşkar P, Baş T (2008). A Structural Equation Model for ICT Usage in Higher Education. *Educ. Technol. Society.*, 11 (2): 262-273.
- Werhane PH (1998). Moral imagination and the search for ethical decision-making in Management. *Bus. Ethics Quart.*, The Ruffin Series: Special Issue.
- Werhane PH (2002). Moral Imagination and Systems Thinking. *J. Bus. Ethics.* 38 (1/2): 33-42.
- Werhane PH, Dunham, L (2002). Moral Imagination: A Bridge between ethics and entrepreneurship. [Online]. Available: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=252654](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=252654) (Accessed 06 March 2010).
- Werhane PH (2006). Access, Responsibility, and Funding: A Systems Thinking Approach to Universal Access to Oral Health. *J. Dental Educ.*, 70(11): 1184-1195.
- Werhane PH, Moriarty B (2009). Moral Imagination and Management Decision-making. [Online]. Available: [http://www.corporate-ethics.org/pdf/moral\\_imagination.pdf](http://www.corporate-ethics.org/pdf/moral_imagination.pdf) (Accessed 06 March 2010).
- William D, Greenfield J (2004). Moral leadership in schools. *J. Educ. Admin.*, 42(2): 174-196.
- Yashiro K, Yoshida T, Suzuki Y (2008). Training on Corporate Social Responsibility in Japanese Companies: Based on a Survey. The Fourth ISBEE World Congress. 15-18 July 2008. Cape Town, South Africa
- Young G (2008). Advisory Panel and Committees. *Encyclopedia of Business ethics and society.* 5(1): 29-31.
- Zaheer A, Rehman K, Khan MA (2010). Development and testing of a business process orientation model to improve employee and organizational performance. *Afr. J. Bus. Manage.*, 4(2): 149-161.