IMPACT OF FAMILY OWNERSHIP ON OPERATIONAL AND FINANCIAL RISK MANAGEMENT STRATEGIES AND VALUE OF THE FIRM

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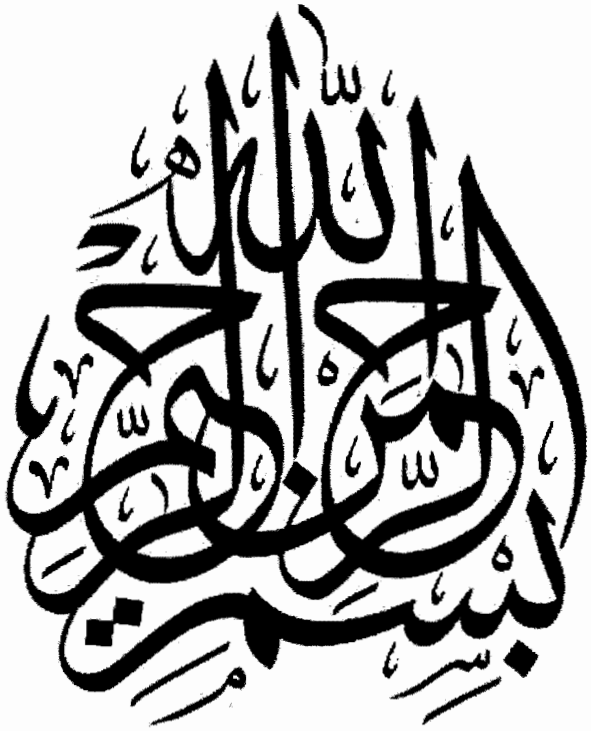
ABSTRACT

In this study, it is investigated that how family ownership affects operational and financial risk management strategies and value of the firm. In particular family ownership is a type of ownership in which ownership stay bound within one family so their risk management strategies differ from the other ownership structures. By using the data of 100 non-financial listed firms on Karachi Stock Exchange from 2003-2012; logit model was used to analyze the relationship between family ownership and operational and financial risk management strategies whereas panel regression was used to analyze the relationship between family ownership and value of the firm. Incomplete financial instrument disclosure requirements restricted researchers to using binary variable as a dependent variable instead of notional value or fair value of derivative usage. It is shown that family ownership affects operational and financial risk management strategies of the firm. Value of the firms is significantly influenced by family ownership in the presence of operational and financial risk management strategies. Findings of this study is very close to Kim, Pantzalis, and Park, (2013). Risk management practices especially use of financial derivative make the information environment clearer so it will help the investors to take decisions about the future investment while keeping in view their risk management practices also.

Keywords: Family ownership, Operational hedging, Financial hedging, Value of the firm.



"Acquire knowledge and impart it to the people"

(Hazrat MUHAMMAD صلی اللہ علیہ وسلم)

DECLARATION

I hereby declare that this thesis, neither as a whole nor as a part thereof, has been copied out from any source. It is further declared that I have prepared this thesis entirely on the basis of my personal effort made under the sincere guidance of my supervisor. No portion of work, presented in this thesis has been submitted in support of any application for any degree or qualification of this or any other university or institute of learning.

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DEDICATION

I dedicate this thesis to my respectable parents and my honorable supervisor whose support has enabled me to complete this research study successfully.

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Praise be to ALLAH Almighty, The Merciful, The Compassionate and The source of Knowledge and Wisdom, who made me capable of learning, blessed me with the knowledge and help me to accomplish this research project.

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Ms. TAYYIBA ZAHEER

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Chapter 1

1.1 Introduction

One of the most important characteristics of Pakistan's corporate sector is high ownership concentration. In the Hofstede's (2004) cultural dimensions, Pakistan's culture is collectivist and has high power distance. The most important characteristic of the collectivist society is trust and loyalty. Based on this cultural dimension, Pakistani business man prefer to work within their family, so in Pakistan high ownership concentration is found in the corporate sector (Khilji, 2003, 2004). Families and close group of investors like directors and institutional or foreign owners owned majority of the shares within one firm. In Pakistan 22 major families are owning different businesses in different sectors or industries (Shahid ur Rehman). Family businesses are the most important part of capital markets representing as the largest listed companies. Therefore family businesses are playing a major role in the economy of both developed and developing.

Ownership structure has received considerable attention of the scholars and debaters during the last decades. Ownership structure comprise of insider ownership, institutional ownership, foreign ownership, family ownership, concentration ownership, block holder ownership and bank equity ownership. A lot of researchers have found that ownership does matter and allocation of the property rights influences the economic behaviour of the firm (Schleifer & Vishny, 1986). Among the ownership structure, growing body of the literature has focused on the performance of the family owned firms.

In family owned firms ownership or the voting rights are concentrated among one family whereas in non-family owned firms, ownership is dispersed among different

people or shareholders (Dar et al., 2011). Researchers have been interested in analysing the role and impact of ownership structures on the outcome of firms in terms of its performance and value. In emerging economies like Pakistan and India, family ownerships are popular and getting increased attention from the empirical researchers who are evaluating the firm performance in this context.

One of the most important issues is value of the firm from the business perspective. Value of the firm depends on different strategies. These strategies include size of the firm, free cash flows available to the firm, risk associated to the cash flow and optimal capital structure. In short it can be stated that value of the form depends on different financial and operational strategies of the firm. These strategies are influenced by the decision making of the owners or directors of the firm. Therefore ownership structure plays an important role in defining different strategies of the firm in order to enhance the value of the firm. Policies of the owners may vary for operational strategies as well as financial strategies of the firm. Especially in case of family owned business where ownership stay bound within one family, these strategies may be influenced by the decision making of the owner.

In family businesses role of the owner is extremely very important in decision making. Owners of the family firms try to maintain the status quo, in order to maintain it, owners may try to minimize risk and make longevity of the firm sure for the later generations. Family owners tend to have long term business perspective than non-family owned firms therefore their appetite for risk taking is lower than the non-family owned firms. Family owners seek to reduce firm-specific risk in order to hedge their undiversified wealth portfolio; they may try to do so by influencing firm hedging policy through the use of derivatives in the short run and the adjustment of operating policies through diversification in the long run (Gurbuz & Aybars, 2010).

Family ownership is found to have bi-directional relationship in literature with performance and value of the firm. Family owned firms that have higher concentration of ownership have prospect to grab more profitable activities through the use of their power at the stake of minority shareholders (Bhagat & Bolton, 2008). In other words their greater concentration in the ownership leads them to have more incentives to achieve private benefits. In 2005 Earle et al, found that family owned firm tends to have lower profitability due to their higher concentration in the ownership than non-family owned firm with their lower concentration in the ownership. In the same manner performance of the family owned firm is inferior to the non-family owned firms. When shareholders have higher portion in the ownership (family owned business), they have more incentives and opportunities to maximize their wealth from the company at the expense of others.

An important theory that relates with the ownership structure is the agency cost theory, which was pioneered by Berle and Means in 1932. Agency cost takes place when there exist a conflict between management and shareholders or between equity investors and debt holders. Conflict here refers to the conflict between the interests of both parties. Basically manager works as an agent of shareholders therefore they build an agent- principal relationship. Conflict will arise when managers keeping their interest prime, waste resources of firm or does not make any effort to increase the value of firm. In case of the family owned and family managed firm conflict of interest does not make any sense but in the case of non-family owned firms or dispersed ownership where professional managers' manage firms, conflict of interest does exist between owners of the firms and management.

Agency theory says that concentration of ownership has prospect to grab more profitable activities through the use of their power at the stake of minority

shareholders. In other words their greater concentration in the ownership leads them to have more incentives to achieve personal benefits. When the ownership is concentrated within one family than the firm will be more efficient. It is due to the monitoring ability of the owner of the family hence it reduces the agency cost that is associated with the hired manager. Businesses that are owned by family member have better performance than non-family owned businesses both in terms of profitability and financial structure (Azam, Usmani & Abassi, 2011).

The agency theory's expectation split-up between ownership and control leads towards managerial benefits. In the case of diffused ownership it would be difficult for the shareholders to put their efforts to monitor the mangers hence mangers have maximum authority to use their power. It was investigated in different studies that mangers prefer their own reputational and financial benefits through diversification in the product market due to expense preference, empire building and their risk aversion strategy. Due to higher diversification and fast growth, wealth and reputation of the manger may increase but value of the firm might remain unchanged. On the other hand concentrated ownership has more tendency to monitor the manager and align the goals for wealth maximization. Contrary to this study Wang (2006) reported in their studies that direct relationship exist between ownership concentration and firm performance. Shahab-u-Din & Javid, (2011) found non-linear relationship between ownership concentration and performance of the firm.

The more recent agency conflict concept is not the basic, as the conflict between management and owner but here the conflict is between majority shareholder and minority shareholder (Shah, Butt & Hasan, 2009). Family owned firms, large concentrated ownership and block holder ownership are risk averse in nature and they tend to have lower risk because of their undiversified ownership. Their prime interest

lies in the survival of the firm. Hence these firms go for little debt financing and has to face lower cost of financing than dispersed ownership. In family-owned firms behaviour of the ownership is risk averse therefore a major conflict arises between majority shareholders and minority shareholders about firm-specific risk.

The classical portfolio theory pertains that within a portfolio, shareholders should have to diversify the firm-specific risk under the assumption of perfect capital market. It cannot be for the family owned firms, large concentrated ownership and block holding ownership that have larger and undiversified positions in the firm's equity. Due to their enormous influence upon the business policies of the firms, owners try to mitigate the impact of missing diversification in their portfolio through the use of various risk reducing strategies. In comparison to non-family owned firms, family firms, concentrated ownership firms and block holding ownership firms found to be risk averse.

Firm specific risk has significant influence on the performance of the firm. Owners of the firms adopt risk management practices to eliminate or mitigate the impact of risk associated with the firms. Risk management practices include operational hedging strategies and financial hedging strategies. Operational hedging strategies include corporate diversification and financial hedging strategies include use of financial derivatives and other tools. In order to maximize the value of the firm, hedging of both types financial and operational is an important part of the overall firms' corporate strategy. It is important due many reasons for example it adds value to the firm, increase in profitability, reduction in risk, increased market share, increased debt capacity, higher growth, extension of business life cycle, and efficient utilization of human and financial resources. These strategies depend upon the decisions made by the owners or directors of the firms therefore family ownership is an important tool to

determine these policies in the context of Pakistan where most of the businesses are owned by families.

1.2 Problem Statement:

There are different ownership structures that affect financial strategies of the firm. Among all ownership structures in the context of Pakistan family ownership is an important one. Therefore main concern of this study is how family ownership affects operational and financial risk management strategies and value of the firm.

1.3 Gap of the study:

Different studies have been conducted on the impact of ownership structure and operational hedging techniques and ownership structure and financial hedging techniques in different countries. Prior literatures of finance have addressed other relationships frequently, firstly, the relationship between ownership structure and firm performance, corporate governance and firm performance and corporate governance and firm risk. The area about the impact of ownership structure especially family firms on the part of their financial and operational hedging strategies has been ignored to some extent. To enlighten this issue, this study has explored the relationship between these constructs in the context of Pakistan's listed non-financial firms. In the context of Pakistan corporate governance and its impact on firm risk was investigated (Alam & Shah, 2013). They found that family control have negative impact on firm risk. A recent study on Impact of ownership structure on risk management strategies in TSE (lotfi & Mohammadi, 2014). They found that ownership structure has positive and negative impact on the risk management of the firm. It is important to investigate this relationship in the context of Pakistan. This study will try to fill the gap through

empirical investigating the impact of ownership structure (family firm) on operational hedging and financial hedging strategies of the firms and their ultimate effect on value of the firm. In particular it will focus on the firm level risk reducing strategies like geographical diversification, business segment diversification and through the use of financial derivatives.

1.4 Research Question:

The current study is an attempt to answer the following research question. The research question for the study include:

- What is the influence of family ownership structure on financial and operational risk management strategies and value of the firm in the case of Pakistan?

1.5 Objectives of the Study:

This study aims to fulfil following objectives.

- To empirically investigate the relationship between family ownership structure and operational risk management strategies of the firm.
- To empirically investigate the relationship between family ownership structure and financial risk management strategies of the firm.
- To empirically investigate the relationship between operational risk management strategies and value of the firm.
- To empirically investigate the relationship between financial risk management strategies and value of the firm.
- To empirically investigate the relationship between family ownership and value of the firm.

One of the most important strategy from the perspective of the business is corporate risk management strategy because it adds value to the firm (Smith & Stulz, 1985). Risk management strategies enhance the value of the firm through reducing the risk that is associated with the firm. It also reduces the external cost that is taxes paid to the government, direct and indirect bankruptcy cost and agency cost through lining up the interest of shareholder and managers together.

1.6 Significance of the study:

In the world, Asian family firms have distinguishing features because they believe in long-lasting personal relationship that builds up with the element of loyalty and trust (Reddy, 2009). Pakistan's culture is collectivist and it is based on the element of trust and loyalty. Ownership structure plays an important role in the decision making of the organization. It helps in defining objectives and strategies of the firm. Operational hedging strategies and financial hedging strategies are most important strategies of the firm and play an important role in defining the objectives of the firm. This study will help the owners in defining objective of the organizations. The basic purpose of the hedging is to make sure that the company only takes the risks that will help it to achieve its primary objectives while keeping all other risks under control. Corporate diversification and use of financial derivatives can be linked to risk, with the objective of controlling the relative or total risk associated with firm performance. This study will also help the investor and policy maker to understand the ownership pattern and their risk managing abilities. This study will also assist the investors to take decisions about their ownership pattern and the market value of their stocks in the capital market (KSE).

Organization of the thesis:

The study is organized as follows: the second chapter precisely discusses the historical perspectives about family firms, operational and financial risk management strategies and value of the firm. Third chapter explains the sample, data set, measurements and explanation of variables and the methodology. Chapter four explains results and discussion. Chapter five explains practical implications, limitations and future directions.

Chapter 2

2. Review of literature

2.1 Ownership structure:

Ownership structure is the dispersal of ownership of the companies' stock among different shareholder and it can be studied in two ways. One way is concentration of ownership whereas other way is composition of ownership structure (Jiang 2004). Ownership concentration is known as families, certain number of people and institution hold shares of the company. With reference to the intensity of ownership concentration, ownership structure is studied as concentrated versus dispersed ownership structure (Gursoy & Aydogan 1998).

Ownership structure is one of the most important components of corporate governance. It is composed of insider ownership, institutional ownership, foreign ownership, family ownership, concentration ownership, block holder ownership and bank equity ownership. Ownership structure is considered as a mean to lessen the information asymmetry between insider and outsider within the capital markets (Wahla et al., 2012). Demsetz (1983) found ownership structure as an endogenous facet and it maximizes the value and profitability of the firm. The most important issue is separation of ownership and control. The debate about split-up between ownership and control is started in 1932 by Berle and Means. Performance of the firm is badly affected by the agency conflict between management and shareholder. When there is isolation between ownership and control than due to increase in the monitoring cost, value of the firm decreases. Solution to this agency problem was provided by Jensn and Mecking (1976) through increase in the managerial ownership or stack in the firm. Hence it was

investigated that management participation in the ownership reduces the agency conflict as interest of the both parties are aligned.

Previous studies have found both positive and negative effects of ownership structure on performance of the firms. A major role in the performance of the firm is played by ownership structure and it helps policy makers to adopt better corporate governance system (Fazlzadeh, et al, 2011). Xu and Wang (1999) in chines context found in their study that ownership structure both dispersed and in concentrated form have significant influence on firms' performance. Morck et al. (1988) in the Japanese context investigated that with an increase in managerial ownership performance and value of the firm also increases.

When the ownership is concentrated within one family than the firm will be more efficient. It is due to the monitoring ability of the owner of the family hence it reduces the agency cost that is associated with the hired manager. Businesses that are owned by family member have better performance than non-family owned businesses both in term of profitability and financial structure (Allouche et al., 2008).

In the case Pakistan, Impact of ownership structure and corporate governance on capital structure of Pakistani listed companies was explored by Hasan and Butt in 2009 for 58 non-financial firms from the period of 2002-2005. They investigated that debt and equity ratio is negatively associated with board size and managerial ownership. They also found that there is insignificant association between corporate financing behaviour and presence of non-executive director on the board. They found that among the determinants of the corporate capital structure ownership structure and board size are most important factors.

Empirical evidence on the relationship between ownership structure and risk management strategies of the firm is not so strong. Risk management influence

performance of the firm and adds value to the firm. In corporate governance, ownership structure is an important element to develop policies and strategies for better performance of the firm. In 2013 Mohammadi and Lotfi found significant relationship between risk management and board of director composition in TSE. In Indonesian firms, systematic risk and corporate governance found to be significantly associated (Prasetyo, 2011). Ownership structure significantly influence systematic risk (Lio & Zhu, 2009). In a study Borokhovich et al. (2004) had tested the relationship among derivative users and board composition of 284 non-financial firms of US. They found that derivative usage is mostly used by non-family firms.

2.2 Operational and Financial Risk management strategies:

"Corporate risk management is thought to be an important element of a firms' overall business strategy" Stulz (1996: pp. 23-24). Risk management is important corporate strategy because it adds value to the organization, explicitly address uncertainty, an essential part of the decision making, in organizational process it is an essential part, it is capable of continuous improvement and development in the firm. The basic purpose of the corporate risk management is to increase wealth of the shareholder by increasing value of the firm through proper management of the exposure. Two important elements of corporate risk management strategies are operational and financial risk management strategies. Both risk management strategies are associated with increase in firm value. Operational hedging through diversification (both geographical and business segment diversification) is beneficial for firm to reduce the cash flow volatility. Financial hedging can be done through the use of different type of derivatives e.g. interest rate derivatives, currency derivatives and exchange rate derivatives.

Risk associated with securities can be minimized by shareholders through a well-diversified portfolio. Now a days derivatives are used by corporations to minimize the

firms' exposure. According to Modigliani and Miller (1958) reduction in firms' exposure through the use of derivative is useless under perfect capital market conditions. However Stulz (1984) and Smith and Stulz (1985) proved that when corporations have certain operating features like growth opportunities, financial distress cost, managerial holdings, tax convexity and some other liquidity constraints under capital market frictions than firms adopt hedging techniques to enhance the value of the firm.

Derivative use is important in two different ways for firms while financing and investment decision are considered with the hedging policies of the firm: firstly, when opportunity cost of internal financing is less than the cost of external financing and secondly, when there is negative correlation between cash flow and investment expenditures of the firm (Froot et al., 1993). Bessembinder (1991) had provided another very different explanation for corporate risk management that hedging has a benefit that opportunistic behaviour of equity holder is reduced when there is decrease in the financial distress cost.

Latest empirical studies have found that hedging decisions are influenced by the corporate governance structure and managerial risk preferences. In a study Lel (2004) investigated over an enormous data set of 34 countries and found that hedging is positively influenced by the strong internal corporate structures. In another study by Allayannis, Lel, and Miller (2003) had found that with the strong internal corporate governance structure has substantial value premium for hedging firms than firms with weak internal governance structure. In another empirical study it is found that derivatives are used by mangers to hedge their own risk and it doesn't enhance the value of the firm (Rajgopal & Shevlin, 2000).

2.3 Hypotheses of the study:

2.3.1 Family Ownership and Risk Management strategies:

A family-owned business may be defined as any business in which two or more family members are involved and the majority of ownership or control lies within a family. In family owned firms ownership or the voting rights are concentrated among one family whereas in non-family owned ownership is dispersed among different shareholders (Masood, 2013). The most important characteristics that are found in the family owned firm are loyalty, altruism and trust. These features make them to have flexibility in operations and in the decision making; hence all of these have positive impact upon the firms' performance.

A business is said to be a family business if the business is controlled by the dominant alliance of the family members or different families owning a business for longer periods via family generations. In the whole world family business is a leading form of the business (Peng and Jiang, 2011). In US among all the businesses 85% firms are family owned (Peng and Jiang, 2011). In Asian countries family firms are the most prominent form of the businesses. For example it was explored that among all the private sector 99.9% firms are family owned (Iyer, 1999). In the same way major portion of the Pakistan's equity market is comprised by family owned firms (Ghani and Ashraf, 2002).

In the world, Asian family firms have distinguishing features because they believe in long-lasting personal relationship that builds up with the element of loyalty and trust (Reddy, 2009). Generally in Asia major decision making of the business in case of family firm lies in the hand of male member of the family. Hence male controlled strong value system become an essential part of the family firms in which major decision making stays in the hands of father or the eldest brother and unquestionable authority

is enjoyed by them (Song et al., 2005). For instance, in Korean organizations, the president is the father and the older brother/s is in upper level management and the younger brother/s or son/s is in lower management (Song et al., 2005). Likewise, a powerful father figure, paternalism and extensive use of networks are the characteristics of a typical Chinese family firm (Yu, 2001). Similar features are exhibited by business organizations in Pakistan, which are characterized by a paternal head, large power distance between the top and lower levels of management, and the decision-making authority located at the top (Khilji, 2004).

Family firms are different from non-family firms in different aspects, firstly undiversified and large portion of equity is in the hands of family firms, and secondly shares of the family firms are owned by family members over many generations so their focus is on long term management approach and their prime interest is survival of the firm for longer span of time (James 1999). Hence, this form of "patient capital" and long-term orientation might prevent family firms from economic short-termism and managerial myopia commonly associated with widely-held corporations (Stein 1988). Thirdly, family firms have tendency to overcome the problem of free rider due to their large portion in the equity. So it is the major benefit of the family firm is the effective monitoring system of the management that have tendency to eradicate the notorious agency conflict between manger and shareholder (Shleifer & Vishny 1986). Fourthly, family members are large equity holder and also involved in the top management so their involvement in the supervisory positions help in reducing the management and shareholder conflict. Fifthly, emotional relationship and family ties are also found in the management style of the family firms so generally it is not pure economical. Sixthly, family business is influenced by the culture and values prevailing in the family. Finally,

families resist to give up control over family business which results in power control of the business and large equity portions in equity holdings.

Under the contractual view of the firm developed by Berle and Means (1932) the owners (principals) of the firm face the classical agency problem how to reassure the managers (agents) not to expropriate or waste their funds on self-dealing, entrenchment strategies or inefficient investment projects. In such a setting both the principal and the agent are rational actors who seek to maximize their individual utility. Agency costs are incurred if there is room for opportunistic behaviour and interests of owners and managers diverge. The two main options of corporate governance to alleviate this moral hazard problem are alignment of interests between managers and shareholders or the introduction of effective monitoring mechanisms.

One important agency conflict between owners and managers arises from different attitudes towards firm-specific risk. Classical portfolio theory suggests that under the assumption of perfect capital markets shareholders can diversify the firm-specific risk within their portfolio. This might not hold true for founding families who tend to hold large and undiversified equity positions in their firms. As a consequence, and based on their large influence on business policies, family members might seek to compensate the missing diversification on a portfolio level by the application of different risk reducing strategies on the firm level. Thus, family firms in comparison to non-family firms might exhibit a stronger risk aversion. It is expected to them to use more income smoothing techniques within the firm, such as diversification and hedging, to reduce the risk associated with cyclical businesses, regional market insecurities, cost and demand shocks or financial distress.

Family ownership, usually in the form of large, undiversified block holdings, may increase the propensity to use hedging policies to reduce personal wealth portfolio risk

at the expense of firm value. Specifically, if family owners seek to reduce firm-specific risk in order to hedge their undiversified wealth portfolio, they may try to do so by influencing firm hedging policy through the use of derivatives in the short run and the adjustment of operating policies in the long run. Alternatively, since hedging policy can improve firms' information environments by reducing information asymmetry between managers and the financial markets, family firms that are often regarded as more opaque (Anderson et al., 2009) may use hedging policies to reduce information asymmetries. So based on above argument it can be hypothesized that;

$H1_a$: Operational risk management strategies are affected by family ownership structure.

$H1_b$: Financial risk management strategies are affected by family ownership structure.

2.3.2 Operational and financial hedging strategies and value of firm:

"Corporate risk management is thought to be an important element of a firms overall business strategy" Stulz (1996: pp. 23-24). Basically risk management works on certain principles for an example it adds value to the firm, it is an important corporate strategy, takes part in continuous improvement and it plays an important part in the decision making of the firm. The basic purpose of the corporate risk management is management of the risk exposures to increase shareholder wealth by the increase in the value of the firm. Two basic elements of corporate risk management strategy are operational and financial risk management strategy. Operational hedging through diversification (both geographical and business segment diversification) is beneficial for firm to reduce the cash flow volatility. Financial hedging can be done through the use of different type of derivatives e.g. interest rate derivatives, currency derivatives and exchange rate derivatives.

It is generally believed that shareholders are able to reduce risk by constructing a well-diversified portfolio. However, existing literature on risk management shows that corporations are using derivative instruments to minimize firms risk exposure. According to Modigliani and Miller (1958) under perfect capital market conditions, it is useless for a firm to reduce risk by using derivatives. Whereas, theoretical evidence provided by Stulz (1984) and Smith and Stulz (1985) had shown that, under certain market frictions, corporations having specific operating characteristics like, higher financial distress costs, tax convexity, growth opportunities, managerial holdings and liquidity constraints, have an opportunity to enhance firm value by optimally utilizing hedging techniques.

In the field of management remarkable attention has been received by an important firms' growth strategy that is corporate diversification. Literature has identified some cost and benefits that are associated with corporate diversification. Existence of the internal capital market, economy of scale, higher operating efficiency, and reduction in the cost of capital and increase in capital enhancing ability are the benefits associated with corporate diversification. On the other hand inefficient capital allocation, subsidization and agency problems are the costs that are associated with the corporate diversification (Stultz, 1990). Hence diversified firms are still dominant and prosperous, especially in emerging countries. Weak institutions and high political and macro-economic risk has made emerging markets an incentive for firms to diversify their risk over different industries (Dieleman and Sachs, 2008).

In previous studies diversification is used as a proxy to measure operational hedging. In different studies diversification is negatively associated with value of the firm, it is because of two reasons. Firstly, problem of capital misallocation is found in many diversified firms. Secondly, managers undertake non-value acquisitions just to promote

their self-interest (Stultz, 1998). Mangers intention behind such acquisition underlies self-interest like increase in their compensation and high prestige and power. Firms, exposure to risk is found to be effectively reduced by the application of the operational hedging strategy (Aabo & Pantzalis, 2011).

In a study Allayannis and Weston, (2001) found that financial risk management strategy has influence upon the value of the firm. When managers prefer their own personal benefits than implementation of the financial hedging strategies has tendency to reduce the agency cost. Managers' risk aversion leads towards the corporate hedging decisions. Hedging policies do not make any difference for outside shareholders who can already diversify their portfolios but these decisions may influence he managers who has huge portion invested in the equity of the firms (Stultz, 1998). A suitable way for these managers to reduce the variance of firm value is by using hedging instruments that may make managers better off without costing outside shareholders much.

Since agency conflicts tend to be exacerbated in the presence of "information asymmetry" where managers possess superior information than that of owners, hedging may be beneficial as it has the potential to reduce such information asymmetry (DaDalt et al., 2002). Therefore, hedging policies may ease the task of forecasting future cash flow and improve stock price informativeness. Dolde and Mishra (2007) determine that geographically diversified firms use substantially greater amounts of foreign exchange derivatives than purely domestic firms. Da Dal eta, (2002) present evidence supporting the premise that the use of derivatives is associated with lower information asymmetry.

By considering the above literature it can be hypothesized that

H_{2a}: Operational risk management strategies affect value of the firm.

H_{2b}: Financial risk management strategies affect value of the firm.

2.3.3 Family Ownership and Value of the Firm:

Financial theory demonstrates that net present value of all the expected future cash flow is equal to the value of the firm. Because future cash flows are expected and uncertain (Eiteman et Al., 2004). In the modern corporations an important mean to reduce the agency conflict is ownership concentration. Concentration of ownership has tendency to positively influence the performance of the firm whereas dispersed ownership has monitoring and free riders' problem (Berle & Means, 1932). Later on in another study the relationship between ownership concentration and value of the firm is confirmed and it is also found that large shareholders can resolve the owner-manager conflict through efficient monitoring and proper control (Shleifer & Vishny, 1986). In a similar study done by Holderness and Sheehan (1988) suggested that concentrated firms enjoy survival over longer duration of time as compared to widely dispersed firms. These findings contradict the hypothesis that ownership concentration in the hands of large shareholders is motivated by wealth expropriation or consumption of corporate resources. In favour of a positive effect of ownership concentration on firm performance, Shleifer and Vishny (1997) mention that large shareholders address the agency problem between owners and managers in that they have a great interest in profit maximization.

In addition, evidence from the whole world recommends that performance of the firm is affected by ownership structure and environment of the country. It is found that value of the firm is positively affected by the concentration of ownership (Denis & McConnell, 2003). Chen and Yur-Austin (2007) suggested in their study that block holder ownership structure has tendency to mitigate the agency cost and also contribute to the value of the firm. In past empirical and theoretical researches many arguments

have been found in the favour of direct relationship between concentration of family ownership and performance of the firm.

The prime interest for family owners is survival of the firm over longer duration of the time because it is an asset to them and they want to transfer it to the nest generation so they are worried about the continuity of their business (Lee, 2006). This objective of the family firms motivate them to invest in the business in a way that may enhance the value of the firm so it may benefit the minority shareholders also (McVey & Draho, 2005). According to Anderson and Reeb, (2003) managerial myopia is reduced by the sustained presence of the family owners so it may positively influence the value of the firms.

In family firms another important concern is "reputation concern" and for this concern and to maintain their name for longer duration owners of the firms put their maximum effort to maximize the wealth, utilize best of their resources hence leads towards positive outcomes (Denis & Denis, 1994). Management positions are occupied by owners of the family and it is beneficial for firms' value and no agency conflict is found. Reduction in the agency conflict leads to reduction in agency cost and monitoring cost which result in better performance of the firm (Holderness &Sheehan, 1988). Similarly family firms try to generate internal funding to avoid the conflict between bondholder and shareholder so agency cost is also minimized in this case when internal funding is generated (Anderson, Mansi & Reeb, 2003). It can be stated whether family ownership, as a particularly interesting organizational structure, has a significant effect on firm value.

H_3: Family ownership affects value of the firm.

2.4 Control variables:

Control variables are used to reflect the impact of various unobserved factors related to the company (Wahla et al., 2012). There are some firm characteristics that may affect firms' operational and financial risk management strategies and value of the firm that are other ownership structures, firm size, age of the firm, profitability and market-to-book (Allayannis et al., 2003; Fama & French, 1998; Ge´czy et al., 1997; Nance, Smith, & Smithson, 1993).

Chapter 3

3. Data and Methodology:

3.1 Data and Sample:

Initially, all firms that are listed at Karachi Stock Exchange for the period of 2003 – 2012 have been included. As the balance sheets of financial firms are different from those of non-financial firms and their risk management strategies differ from non-financial firms therefore, financial firms have excluded like banks, insurance companies and investment companies. Availability of data is also a key criterion that was considered while selecting the sample of firms. Firms in the sample was selected from textile, chemical, cement, glass and ceramics and sugar industry of Pakistan. To avoid the sector bias no sector is given more than 20% of representation. So the sample size is 100 non-financial firms listed on the KSE. The source of data is financial reports of the firms. As the data is cross sectional and time series so to analyse the relationships between all constructs, panel data analysis has been employed. Panel data analysis is considered as most appropriate estimation for heterogeneous data. It controls heterogeneity which usually arises due to number factors. Panel regression analysis is used to explore the relationship between family ownership and value of the firm. When dependent variable is binary or dummy logit or probit model is used. To examine the determinants of a family firm's propensity to use operational hedges (i.e., to diversify) and financial hedges, Campa and Kedia (2002) probit model is used.

3.2 Description of Variables:

3.2.1 Risk management:

Binary variables are used to empirically test the corporate risk management strategies (Bartram, Brown & Fehle, 2009). It indicated usage or non-usage of the risk

management strategies by the firms. Two important risk management strategies are financial risk management and operational risk management strategies.

3.2.1.1 Financial hedging:

In literature financial risk management strategy is measured by two different ways that is continuous and discrete (Triki, 2005). Discrete measure usually represent usage or non-usage of the variable, basically it is dummy variable. Continuous measure include the fair value of the variable. The benefit of using continuous measure is magnitude of the derivative usage can be investigated. In case of Pakistan companies are using interest rate swaps and cross currency swaps as derivatives in OTC. According to International Accounting Standards 32 and 39, to disclose the information about fair usage of hedging instruments and their respective values in a uniform manner in notes to the account of annual reports is mandatory for firms. Here in this research dummy variable is used. Dummy variable take the value of 1 if firm uses financial derivative otherwise 0.

3.2.1.2 Operational hedging:

Operational hedging can be measured by firms operations across the geographical boundaries. Sales in others regions is used as a proxy to measure geographical diversification. Dummy variable is used to take the value of 1 if firm is involved in geographical diversification otherwise 0. The data related geographic diversification can be obtained in the notes to the accounts from the annual financial reports of the frim.

3.2.2 Family ownership:

A family-owned business may be defined as any business in which two or more family members are involved and the majority of ownership or control lies within a family. In family owned firms ownership or the voting rights are concentrated among one

family. A dummy variable having value 1 if 50% or more than 50% shares are owned by single member or family and 0 otherwise.

3.2.3 Value of the Firm:

Value of the firm is measured by the Tobin's Q. "It is a ratio of company's total market value and its total asset value devised by James Tobin of Yale University in 1969". It is basically market based performance measurement. It assumed in this study that valuation of firm is linked with firm's ownership structure and its performance

$$QRatio = \frac{Total\ Market\ Value\ of\ Firm}{Total\ Asset\ Value}$$

3.3 Control variables:

Control variables are used to reflect the impact of various unobserved factors related to the company (Wahla et al., 2012). There are some firm characteristics that may affect firms' operational and financial risk management strategies that are firm size, age of the firm, profitability and market-to-book (Nance, Smith, & Smithson, 1993).

3.3.1 Firm size:

Firm Size is used as the natural logarithm of the book value of total assets. It is included in all specifications to account for the fact that larger firms are usually more diversified, have a professional finance department and thus use more sophisticated risk management methods.

3.3.2 Age of the firm:

Firm age is the number of years since the firms' foundation. It is calculated as the current sample year minus the founding year of the firm. It is expected that older firms are more diversified and more sophisticated in terms of risk management techniques.

3.3.3 Profitability:

Profitability is represented by return on assets (ROA) which is the ratio of operating profits to total assets. Profitability as the return on capital employed.

3.3.4 Market-to-book ratio:

The Market-to-book ratio as the natural logarithm of the market value of equity divided by the book value of equity.

3.4 Model specification:

This equation is modelled to analyse the impact of family ownership on financial hedging. Model 1 illustrates that derivative usage is a function family ownership, size of the firm, age of the firm, profitability and market to book ratio of the firm. Financial hedging is measures through interest rate swaps and cross currency swaps.

$$Fin.hed_{it} = \beta_{\circ} + \beta_1 FAM_{it} + \beta_2 Size_{it} + \beta_3 FA_{it} + \beta_4 Prof_{it} + \beta_5 MBT_{it} + \varepsilon_{it}$$

....1

Table 3.1 explains the description of the equation 1.

Fin.Hed	Financial Hedging
FAM	Family ownership
Size	Size of the firm
FA	Firm Age
Prof	Profitability
MBT	Market to book ratio
ε	Error term

This equation is modelled to analyse the impact of family ownership on operational hedging. Model 2 illustrates that sales in other region is a function of family ownership, size of the firm, age of the firm, profitability and market to book ratio of the firm. Operational hedging is measured through the proxy of sales in other regions.

$$Op.hed_{it} = \beta_{\circ} + \beta_1 FAM_{it} + \beta_2 Size_{it} + \beta_3 FA_{it} + \beta_4 Prof_{it} + \beta_5 MBT_{it} + \varepsilon_{it} \quad \ldots.2$$

This equation is modelled to analyse the impact of family ownership on value of the firm. Model 3 illustrates that value of the firm is a function of family ownership, size of the firm, age of the firm, profitability and market to book ratio of the firm. Value of the firm is measured through Tobin's Q

$$Tobin's\ Q_{it} = \beta_{\circ} + \beta_1 FAM_{it} + \beta_2 Size_{it} + \beta_3 FA_{it} + \beta_4 Prof_{it} + \beta_5 MBT_{it} + \varepsilon_{it} \ldots.3$$

This equation is modelled to analyse the impact of family ownership and operational hedging on value of the firm. Model 4 illustrates that value of the firm is a function of operational hedging, family ownership, size of the firm, age of the firm, profitability and market to book ratio of the firm. Value of the firm is measures through Tobin's Q

$$Tobin's\ Q_{it} = \beta_{\circ} + \beta_1 Op.Hed_{it} + \beta_2 FAM_{it} + + \beta_3 Size_{it} + \beta_4 FA_{it} + \beta_5 Prof_{it} + \beta_6 MBT_{it} + \varepsilon_{it} \quad \ldots..4$$

This equation is modelled to analyse the impact of family ownership and financial hedging on value of the firm. Model 5 illustrates that value of the firm is a function of financial hedging, family ownership, size of the firm, age of the firm, profitability and market to book ratio of the firm. Value of the firm is measures through Tobin's Q

$$Tobin's\ Q_{it} = \beta_{\circ} + \beta_1 fin.Hed_{it} + \beta_2 FAM_{it} + + \beta_3 Size_{it} + \beta_4 FA_{it} + \beta_5 Prof_{it} + \beta_6 MBT_{it} + \varepsilon_{it} \quad \ldots..5$$

This equation is modelled to analyse the impact of family ownership and operational and financial hedging on value of the firm. Model 6 illustrates that value of the firm is a function of financial hedging, operational hedging, and family ownership, size of the firm, age of the firm, profitability and market to book ratio of the firm. Value of the firm is measures through Tobin's Q.

$$Tobin's\ Q_{it} = \beta_{\circ} + \beta_1 fin.Hed_{it} + \beta_2 Op.Hed_{it} + \beta_3 FAM_{it} + +\beta_4 Size_{it} + \beta_5 FA_{it} + \beta_6 Prof_{it} + \beta_7 MBT_{it} + \varepsilon_{it} \quad .....6$$

Chapter 4

Results and Discussion

This chapter describes the descriptive analysis, Pearson correlation coefficient, logit model and Regression analysis.

4.1 Descriptive Statistics

Results in table 4.1 shows the descriptive statistics of the study. It has variables family ownership (FO), interest rate swaps (IRS), cross currency swaps (CCS), sales in others region (SALES), market to book ratio (MVBV), profitability (ROE), age of the firm (AGE), size of the firm (SIZE) and value of the firm (TQ). Different non-financial firms were part of the sample of the study. Therefore due to the heterogeneity standard deviation for some variables is relatively very high.

Table 4.1

Descriptive Statistics

Variables	N	Mean	Std. Dev	Minimum	Maximum
FO	1000	0.995	0.070569	1	1
CCS	1000	0.493	0.500201	0	1
SALES	1000	0.96	0.196057	0	1
T.Q	1000	1.53673	7.254794	0	129.2
SIZE	1000	7.574922	1.523826	0	12.1526
MV/BV	1000	0.8964	1.440432	-3.86323	4.584957
ROA	1000	0.16368	20.0196	-43.75	45.76
AGE	1000	30.01	15.7927	2	107

4.2 Correlation Analysis

It is essential to find out the individual relationship and probability of multi collinearity among variables Pearson correlation is used. It has variables family ownership (FO), interest rate swaps (IRS), cross currency swaps (CCS), sales in others region (SALES), market to book ratio (MVBV), profitability (ROE), age of the firm (AGE), size of the firm (SIZE) and value of the firm (TQ). Pearson analysis shows that there is no multi collinearity is among variables as no variable is found to be highly correlated.

Table 4.2
Correlation Analysis

	F.O	*CCS*	*Sales in other Regions*	*ROE*	*Age firm*	*Ln. Assets*	*mv/bv*	*Q ratio*
F.O	1							
CCS	0.071***	1						
Sales in other Regions	0.014***	0.0788	1					
ROA	0.0005	0.00644	0.006489	1				
Age firm	0.0494***	0.054603**	0.001408**	0.04368	1			
Ln. Assets	0.009***	0.1***	0.040523**	0.008552	0.097482*	1		
mv/bv	0.02***	0.05623***	0.00555***	0.042952	0.092858**	0.00990*7	1	
Q ratio	0.012**	0.02625***	0.014022***	0.004823	0.00947***	0.00245***	0.008964**	1

***, **, * significance at 1%, 5%, and 10% respectively.

4.3 Logit Analysis of Family ownership and Financial Hedging:

Table 4.4 shows the results of logit model. Financial Hedging (Cross currency swaps) is dependent variable, family ownership (FO) is explanatory variable and profitability (ROA), size (LNASSETS), market to book ratio (LNMV) and age (AGE) are control variables. Results shows that family ownership positively and significantly influence the usage of the Cross currency swaps after control for endogenous factors. Coefficient of family ownership is significant at 99.93% of the confidence level whereas in control variables size of the firm, market to book ratio and age of the firm also has significant coefficients. Significant and positive coefficient of the family firm ensure the usage of the derivatives. The results are in accordance to the literature that family firms tend to use derivatives to hedge their risk associated with their firms. Family firms use derivatives to minimize the risk of their personal portfolios and they prefer to use derivative to reduce the information asymmetry. Derivatives are used by them for short term risk management. Significance of the coefficients of the control variables show that derivative use is affected by the size of the firm, age of the firm and market to book ratio of the firm. Significance of the control variables is also in accordance with the literature. Coefficient of the size of the firm is positive and significant at 97.77% shows that larger firm size tend to use more derivative to hedge their risk. In the same coefficient of age of the firm is also positive and significant at 99.9% and it indicates that mature firms also hedge their risk by the use of derivatives.

Table 4.3

Logit analysis of Family ownership and financial hedging

Variable	Coefficient	Std. Error	z-Statistic	Prob.
FO	1.205046	0.355854	3.386352	0.0007
Profitability	3.820006	0.000324	0.011780	0.9906
Size	0.104225	0.045991	2.266214	0.0234
MV/BV	-0.168405	0.048080	-3.502622	0.0005
AGE	0.019374	0.004435	4.368677	0.0000

Dependent variable Fin Hedging

4.4 Logit analysis of Family ownership and Operational Hedging:

Table 4.4 shows the results of logit model. Operational Hedging (Sales in other region) is dependent variable, family ownership (FO) is explanatory variable and profitability (ROA), size (LNASSETS), market to book ratio (LNMV) and age (AGE) are control variables. Results shows that family ownership significantly influence the Sales in other region after controlling for endogenous factors. Family firms do their operations in other regions through sales in other regions in order to diversify their operational risk. Coefficient of family ownership is significant at 99.93% of the confidence level whereas in control variables size of the firm, market to book ratio and age of the firm also has significant coefficients. Significant and positive coefficient of the family firm indicates that family firms go beyond the geographical boundaries to perform their operations in other regions in order to hedge their operational risk. The results are in accordance to the literature that family firms go for operational risk management by sales beyond the geographical boundaries. Significance of the coefficients of the control variables show that sales in other regions is affected by the size of the firm, age of the firm and market to book ratio of the firm. Significance of the control variables is also in accordance with the literature. Coefficient of the size of the firm is positive and significant at 97.77% shows that larger firm size go for more diversified operations. In the same coefficient of age of the firm is also positive and significant at 99.9% and it indicates that mature firms also enhance their operations in the other regions hence this mode of diversification hedge their operational risk associated to their risk.

Table 4.4

Logit analysis of Family ownership and operational hedging

Variable	Coefficient	Std. Error	z-Statistic	Prob.
FO	-3.487146	1.027691	-3.393184	0.0007
Profitability	0.000470	0.000618	0.761040	0.4466
Size	0.643260	0.135383	4.751400	0.0000
MV/BV	-0.241437	0.112089	-2.153977	0.0312
AGE	0.099134	0.021303	4.653510	0.0000

Dependent variable is operational Hedging

4.5 Regression analysis of family ownership and value of the firm

Table 4.5 shows the results of panel regression, fixed effect model is used. Value of the firm is dependent variable, whereas family ownership (FO) is explanatory variable and profitability (ROA), size (LNASSETS), market to book ratio (LNMV) and age (AGE) are control variables. Results shows that family ownership significantly influence the value of the firm after controlling for various endogenous factors. Coefficient of family ownership is significant at 99.99% of the confidence level whereas in control variables size of the firm, market to book ratio and age of the firm also has significant coefficients. Significant and positive coefficient of the family firm indicates that value of the firm is enhanced by the presence of the family ownership. It may be because of the complete control of the family owners on the resources of the firm. They have the ultimate authority to influence the decision making of the firm so they focus for the long term survival of the firm which may help them to opt positive NPV projects for firm and it ultimately enhance the value of the firm. The results are in accordance to the literature that value of the firm is positively and significantly affected by the presence of family ownership. Significance of the coefficients of the control variables show that value of the firm is affected by the size of the firm and market to book ratio of the firm. Significance of the control variables is also in accordance with the literature. Coefficient of the size of the firm is positive and significant at 97.99% shows that larger firm size enhance the value of the firm.

Table 4.5

Regression analysis of family ownership and value of the firm

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FO	7.519474	0.891709	8.432651	0.0000
Size	0.945208	0.116578	8.107931	0.0000
MV/BV	1.198169	0.120859	9.913816	0.0000
AGE	-0.004801	0.010748	-0.446662	0.6552
Profitability	-0.000145	0.000829	-0.174870	0.8612

Dependent variable is value of the firm (Tobin's Q)

4.6 Regression analysis of family ownership and value of the firm in the presence of financial risk management strategies

Table 4.6 shows the results of panel regression, fixed effect model is used. Value of the firm is dependent variable, family ownership (FO), cross currency swaps (CCS) is explanatory variables and profitability (ROA), size (LNASSETS), market to book ratio (LNMV) and age (AGE) are control variables. Results shows that family ownership significantly influence the value of the firm after controlling for various endogenous factors whereas cross currency swaps and interest rate swaps also shows statistical significance in the presence of family ownership. Coefficient of family ownership is significant at 99.99% of the confidence level and coefficient of cross currency swap is positive and significant at 95.41% of the confidence level whereas in control variables size of the firm and market to book ratio also has significant coefficients. Significant and positive coefficients of the family firm, cross currency indicate that value of the firm is enhanced by the presence of the family ownership and their strategy to of risk minimization. It may be because of the complete control of the family owners on the resources of the firm. They have the eventual authority to influence the decision making of the firm hence they adopt value enhancing risk management practices which ultimately benefit to the shareholders of the firm. The results are in accordance to the literature that value of the firm is positively and significantly affected by the presence of family ownership and their risk management policies. The use of financial derivatives adds value to family firms that are diversified and, therefore, have the ability to construct operational hedges. This finding is similar to evidence in past studies by Lim and Wang (2007) and Lin et al. (2007) who determine that family firms benefit from financial risk management as derivative usage lowers information asymmetry thereby reducing the negative valuation effects of diversification. Significance of the

coefficients of the control variables show that value of the firm is affected by the size of the firm and market to book ratio of the firm. Significance of the control variables is also in accordance with the literature. Coefficient of the size of the firm is positive and significant at 99.99% shows that larger firm size enhance the value of the firm.

Table 4.6

Regression analysis of family ownership and value of the firm in the presence of financial risk management strategies

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FO	7.377581	0.893701	8.255092	0.0000
Fin. hedging	1.997415	0.167276	2.193025	0.0287
Size	-0.962052	0.116777	-8.238389	0.0000
MV/BV	1.225701	0.121529	10.08567	0.0000
AGE	-0.007914	0.010852	-0.729252	0.4660
Profitability	-0.000145	0.000828	-0.175599	0.8606

Dependent variable is value of the firm (Tobin's Q)

4.7 Regression analysis of family ownership and value of the firm in the presence of operational risk management strategies:

Table 4.7 shows the results of panel regression, fixed effect model is used. Value of the firm is dependent variable, family ownership (FO), sales in other region (SALES) are explanatory variables and profitability (ROA), size (LNASSETS), market to book ratio (LNMV) and age (AGE) are control variables. Results shows that family ownership significantly influence the value of the firm after controlling for various endogenous factors whereas sales in other regions show statistical significance in the presence of family ownership. Coefficient of family ownership is significant at 99.99% of the confidence level and coefficient sales in other region is positive and significant at 92.38% of the confidence level whereas in control variables size of the firm and market to book ratio also has significant coefficients. Significant and positive coefficients of the family firm and sales in other region indicate that value of the firm is enhanced by the presence of the family ownership and their strategy to of risk minimization. It may be because of the complete control of the family owners on the resources of the firm. They have the eventual authority to influence the decision making of the firm hence they adopt value enhancing diversification policies as risk management practices which ultimately benefit to the shareholders of the firm. The results are in accordance to the literature that value of the firm is positively and significantly affected by the presence of family ownership and their risk management policies. Significance of the coefficients of the control variables show that value of the firm is affected by the size of the firm and market to book ratio of the firm. Significance of the control variables is also in accordance with the literature. Coefficient of the size of the firm is positive and significant at 99.99% shows that larger firm size enhance the value of the firm.

Table 4.7

Regression analysis of family ownership and value of the firm in the presence of operational risk management strategies

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FO	6.396856	1.104930	5.789376	0.0000
Op. hedging	1.461683	0.851149	1.717305	0.0862
Size	-0.973729	0.117638	-8.277316	0.0000
MV/BV	1.211348	0.120980	10.01283	0.0000
AGE	-0.007211	0.010828	-0.665910	0.5056
Profitability	-0.000164	0.000828	-0.198525	0.8427

Dependent variable is value of the firm (Tobin's Q)

4.8 Regression analysis of family ownership and value of the firm in the presence of financial and operational risk management strategies

Table 4.8 shows the results of panel regression, fixed effect model is used. Value of the firm is dependent variable, family ownership (FO), cross currency swaps (CCS) and sales in other region (SALES) are explanatory variables and profitability (ROA), size (LNASSETS), market to book ratio (LNMV) and age (AGE) are control variables. Results shows that family ownership significantly influence the value of the firm after controlling for various endogenous factors whereas cross currency swaps, interest rate swaps are not significant but sales in other region shows statistical significance in the presence of family ownership. Coefficient of family ownership is significant at 99.99% of the confidence level and coefficient sales in other region is positive and significant at 92.38% of the confidence level whereas cross currency swaps become insignificant when a combined analysis is performed. Significance of the sales beyond the geographical boundaries show that operational management strategies have tendency to enhance the value of the family owned firms. They have the eventual authority to influence the decision making of the firm hence they adopt value enhancing diversification policies as risk management practices which ultimately benefit to the shareholders of the firm. The results are in line to the literature that value of the firm is positively and significantly affected by the presence of family ownership and their risk management policies. Significance of the coefficients of the control variables show that value of the firm is affected by the size of the firm and market to book ratio of the firm. Significance of the control variables is also in accordance with the literature. Coefficient of the size of the firm is positive and significant at 99.99% shows that larger firm size enhance the value of the firm.

Table 4.8

Regression analysis of family ownership and value of the firm in the presence of financial and operational risk management strategies

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FO	6.328032	1.104583	5.728887	0.0000
Fin.hedging	1.064572	5.163118	0.206188	0.3457
Op.hedging	1.374882	0.851724	2.614234	0.002
Size	-0.988112	0.117791	-8.388722	0.0000
MV/BV	1.236872	0.121624	10.16962	0.0000
Profitability	-0.000164	0.000827	-0.197891	0.8432
AGE	-0.010051	0.010924	-0.920101	0.3578

Dependent variable is value of the firm (Tobin's Q)

4.9 Discussion:

In recent years, the finance literature has highlighted the importance of founding family presence in corporate boards, and has provided some evidence that family firms perform better than non-family firms. From the point of view of the business value of the firm is an important concern and it depends on different strategies. Among all the strategies risk management strategies are important one. Risk management strategies include operational risk management strategies and financial risk management strategies. Ownership structure plays an important role in defining the strategies in order to enhance the value of the firm. Family firm found to be risk averse in nature so they adopt risk management strategies to mitigate the impact of risk associated to their firms.

Results in this study shows that operational hedging adds value for family firms. Operational hedging policy has been shown to be effective in reducing firms' exposure to risk. These findings are consistent with Pantzalis, Simkins, and Laux, 2001; Aabo and Pantzalis, 2011. Family firms found to be geographically diversified in order to reduce the risk associated with their firms. Diversified firms are still dominant and prosperous, especially in emerging countries. Weak institutions and high political and macro-economic risk has made emerging markets an incentive for firms to diversify their risk over different industries or beyond the geographical boundaries (Dieleman and Sachs, 2008). Owners have the ultimate authority to influence the decision making of the firm hence they adopt value enhancing diversification policies as risk management practices which ultimately benefit to the shareholders of the firm.

Financial hedging has also been shown to enhance firm value. This is consistent with study of Allayannis and Weston, 2001. Financial hedging reduces the level of agency

costs that arise when managers pursue personal goals and corporate hedging decisions may be the outcome of managerial risk aversion. In family firm presence of the out sider shareholder is also found but they are in different with the risk management strategies because their wealth is invested in diversified portfolios. Managers of the firm possess superior information than the shareholder of the firm and in family firms managers are the ultimate owners of the firm so a suitable way for these managers to reduce the variance of firm value is by using hedging instruments that may make managers better off without costing outside shareholders much.

Chapter 5

5.1 Conclusion:

Ownership concentration is one of the most important characteristic of Pakistani corporate sector. Pakistan's equity market is comprised of majority of the family owned firms. Pakistan's culture is collectivist and it is based on the element of trust and loyalty. Ownership structure plays an important role in the decision making of the organization. It helps in defining objectives and strategies of the firm. Operational hedging strategies and financial hedging strategies are most important strategies of the firm and play an important role in defining the objectives of the firm. Value of the firm is also an important concern for shareholders so they adopt those polices that may enhance value of their firms. For family firm their prime interest lies in the long term survival of the firm and also reputation of the family name so they focus on value enhancing positive NPV projects.

This study explored the role of family ownership in operational and financial risk management strategies and their impact upon the value of the firm in the case of Pakistan. This empirical analysis was performed in three different steps. Firstly impact of family ownership on financial risk management strategies is measured and found that firms go for use of financial derivatives to minimize their risk associated to their firms. Secondly impact of impact of family ownership on operational risk management strategy is measured. It was found that family firm prefer to diversify their risk beyond the geographical boundaries. Finally combined effect of these policies is measured and it is found that use of financial derivatives are not statically significant which means derivatives are used by the family firms to reduce their personal risk associated with them. These finding are very close to Kim C, Pantzalis C, and Park, C.J. (2013). They

also find that in presence of the operational hedging via diversification use of financial derivatives have no value premium for the firm. Operational hedging has significant value impacts. Anderson and Reeb (2003) suggested the negative value implication of the diversification. But the results of this study are positive that for family firms diversification has positive value implications this is because the cultural dimension that Pakistan is collectivist society and businessmen prefer to work within their families. Majority business are owned by families in Pakistan (Shahid ur Rehman). Family firms in Pakistan are involved in different sectors e.g. a single family owned different firms in textile, agriculture, sugar and chemical sectors. In the same way these firms are also diversified beyond the geographical boundaries hence they get the value premium through operations in other regions.

5.2 Practical Implication and recommendations:

This research has following recommendations

- This study will assist owners to take decision about the risk management practices, which type of risk management strategy will be beneficial to firms and also what type of the hedging strategy is value enhancing for firms.
- Risk management practices especially use of financial derivative make the information environment clearer so it will help the investors to take decisions about the future investment while keeping in view their risk management practices also.
- The estimated results of this study provide an insight for firms using financial derivatives and diversification as risk management practices that their optimal use may reduce the opportunistic behaviour of the investor by the reduction in the cash flow volatility.

- Current findings of the study assist policy makers to develop an organized derivative trade market for Pakistani firms.
- The study also highlights that effective usage of derivative instruments may enable corporations to define their hedging policies that are compatible with firm's internal investment and financing policies.

5.3 Limitations of the study:

This study has following limitations

- This study is done on the sample of 100 non-financial firms whose data was available.
- In this study only usage and non-usage of the operational and financial risk management practice is measured.
- Time frame from 2003-2012 is considered
- Interest rate swaps and cross currency swaps are used to measure the financial derivatives that may be the reason for the no value addition for firms in case of operational hedging. If exchange rate derivatives are used the results may add value to the firm in case of use of operational hedging.

5.4 Future Directions

Following can be explored as future research

- Exchange rate derivatives can be used instead of cross currency swaps to investigate the relationship between family ownership and risk management practice and value of the firm.
- Notional values of the both proxies of risk management (operational and financial hedging) can be used instead of the dummy variable.

- Overall ownership structure can be investigated in relationship to risk management and its impact on value of the firm.
- Larger sample size can be taken to analyse the relationship.
- Comparison of different countries in this relationship can be investigated as future study.

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