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# Optimal Failure Tolerance in Pakistani Corporate Venture Portfolios: Patent Output versus Investor Scrutiny

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**Abstract**
*This article analyses the relationship between level of failure tolerance of venture portfolio of the companies with patent output in the case of companies in Pakistan. In particular, it evaluates the effect of investor attention on patent creation, the most crucial sign of innovation, in corporate ventures. Investor supervision is an essential factor to ensure that there is a balance between risk management and promotion of innovation, especially in emerging economies such as Pakistan. It is an archival, cross-sectional research analysis based on the quantitative research of Pakistani corporate ventures engaging in patenting activity between 2016 and 2021. The study examines the role of investor attention volatility in affecting patent output, that is, specifically how tolerance of a corporate portfolio to failure effects patent output. The research examined 100 company ventures in a number of industries. The analyzing variables were the investor reports and governance structures to determine the degree of investor scrutiny and the portfolio diversification and risk-adjusted returns to measure the tolerance of losses. The methodology carried out regression analysis to statistically test the correlation value between failure tolerance and patent output. The results show that failure tolerance has a positive relationship with patent output but investor scrutiny comes in between them. The result of increased level of scrutiny is reduced tolerance to failure which, in turn, decreases the level of patent production in the corporations. The research reveals the significance of the optimal interaction between the investor interest and the level of permitting failure especially in other markets. Innovation can be encouraged by tolerance of failure, and failure due diligence can limit the act of risk-taking and depress the level of patent corporate venture.*

***Keywords***: *Investor Scrutiny, Failure Tolerance, Patent Output, Portfolios of Corporate Venture, Innovation, Emergent Markets, Risk Management*

## Introduction

Corporate ventures have been acknowledged to be a key source of innovation, economic growth and most especially in emerging economies such as Pakistan. These are enterprises, which have a tendency to be driven by a new or risky technology or product, and they are necessary in an economic growth as they bring in novel concepts and processes. One of the most important factors to point out as indicators of innovation is the creation of patents which are concrete representation of innovative solutions and technological inventions. Although we have identified that patent output is significant, what is lacking, and is a critical but under-discussed point is the role of investor vigilance in the determination of the toleration of failure of corporate ventures. Another fundamental element of the entrepreneur ecosystem is failure tolerance; that is the ability of a venture to absorb risk and loss with no impact on the long-term viability of the venture. But in the case of corporate ventures, specifically in the case of emerging economies, investor behavior and how they choose to scrutinize ventures, the level of scrutiny placed on ventures, may bear major implications on the nature of innovation strategies, such as level of risk-taking

and patents created. The proposed research aims at fulfilling this literature gap by studying the impact of different intensities of investor scrutiny on the capacity of a corporate venture to tolerate failure and the level of successful patents registered in Pakistan.

There has been a paradox that corporate ventures have encountered in adjusting their internal failure tolerance, and the expectations of the investor outside. Although tolerance to failure is essential in enabling innovation (with the companies able to experiment and shift gears in case of initial failures), the over-scrutiny of investors can hamper this effect. The tendency of investors is to demand a concrete payout in their investments, thus it could be recorded as their tendency to be drawn towards more low-risk investments and companies which are seen to be readily profitable. Such a focus on short-term achievement may curtail the willingness of the corporate ventures to take the risks of innovative breakthrough innovations more so in emerging markets where market volatility and instability of the institutions involved are more common (Dixon & Nanni, 2019).

The strength of the correlation between failure and innovation output is a worn-studied item in innovation. Failure tolerance allows ventures to go through the uncertainty and risk imbibed in the innovation process that eventually leads to more creative output like patents. The most important indication of the innovation is the patent due to its signification of both technological enhancements and the commercial potential of new ideas (Wang & Luo, 2018). Nevertheless, the demands of investors and more rigid performance requirements that are imposed by them may unintentionally diminish the risk-taking attitude of the firm, thus hampering innovation production (Zhang, 2020).

This tendency is of high percentage in the emerging economies such as Pakistan because institutional and economic conditions make corporate ventures more uncertain. Little is known about such relationships between failure tolerance, investor scrutiny, and innovation output in this kind of market. It is therefore neeessary to comprehend the role of investor behavior on innovation strategies associated with such contexts so as to be able to develop strategies that will sustain growth in the long run in a process of ensuring that investor confidence is not shaken.

**Research Hypotheses**

Based on the above-mentioned problems, we have following propositions in the current study: The number of patents will have a positive relationship with the failure tolerance of the venture portfolio of corporations. The hypothesis avoids making any assumption regarding the size of the venture based on its failure tolerance. The hypothesis approximates that the greater the failure tolerability of a venture, the more it will venture into innovative and high-risk investments resulting into several patent filings.

H2 Investor scrutiny moderates the relation between failure tolerance and patent output, the greater the scrutiny, the less is the patent output. This hypothesis states that there will be a tendency of the willingness to take risks to wane by the corporate ventures as a result of investor scrutiny where the investor scrutiny is large, hence leading to few patents.

However, recent studies have clarified the individual investor behavior and its contribution to the firm innovation especially when there are concerns of high risk. Sammarra et al. (2023) investigated the ways that the preference of venture capitalists to make less risky investments may diminish the innovative activity of firms in the emerging markets. On the same note,

Johnson and Kovačic (2022) observed that although investors are a source of crucial funding in terms of innovation, their ever-the-growing demands regarding oversight might create a conflict between risk-taking and performance expectations, and ultimately result in reduced output of innovation.

The theoretical frameworks of the study are resource orchestration (Sirmon et al., 2011) and behavioral operations (Boudreau et al., 2021). The resource orchestration model indicates that organizations harness their resources, such as financial capacity, human talents, and institutional capacities to take care of risk and innovation. Resource orchestration in the context of corporate ventures is important to mediate the tension between the demands by the investors and risk taking in innovation. Conversely, the behavioral operation theory offers information on how the strategy used to make decisions in the firms is determined by the external players, including the investors, and the influence of the latter on the internal innovation behavior of the firm.

Such theoretical lenses aid in the insights into the influence of the external resource and constraint of investigation into corporate ventures by investors with respect to corporate venture failure tolerance and innovation output within the context of dealing with the two internal decision-making processes.

**Theory and Literature Review**

**Defining Constructs**

To comprehend the dynamics of the apps of scrutiny and intolerance of failure in the portfolios of corporative ventures, the main constructs of the study need to be defined. Among them are failure tolerance and patent output that plays an important role in the process of comprehending the innovation process in corporate ventures.

**Failure Tolerance:**

Failure tolerance is the capacity of a corporate venture to absorb the failures or hold up failures without compromising the long term goals and sustainability of its venture. Failure tolerance, in the case of corporate application, is important since it enables companies to explore new projects using the innovativeness and adjusting accordingly when need arises as well as utilizing the first misses. Large failure thresholds promote risk-taking habits that have been known to guarantee success in the long-term and the production of innovative solutions (Kuratko et al., 2015). The operationalization of failure tolerance is usually done using such measures as portfolio diversification and risk-adapted returns. The spread portfolio offers a cushion against the risk on certain projects, meaning that ventures have the advantage of indulging in risk in some areas without risking the whole portfolio (Hitt et al., 2017).

Bhide (2000) adds that when an entrepreneur lets out failure as part of its strategy, innovation and creativity usually come about. Failure tolerance hence can represent an item of tactical value of companies that want to stretch the envelope of what is achievable and come up with market-defining technologies. Low failure tolerance ventures, however, can eventually be too concerned with stability over innovation by concentrating on short-term earnings and decreasing the chances of developing breakthrough patent exclusive property (Zhang & Ma, 2020).

**Patent Output:**

The quantity of the patents that are registered by a firm in a particular time is called patent output. It is the amount by which the innovation effort and ability of a company is quantified to generate

new technology or patentable processes. The significance behind patents is that, they grant legal security to the newborn concepts and technologies, therefore firms are free to exploit their innovations (Laursen & Salter, 2006). In addition to this, patents serve as a proxy measure of innovative capacity and thus are frequently utilized in research aimed at measuring performance of corporate ventures in elite research and development (R\&D) area (Ahuja & Lampert, 2001).

Corporate success has been linked to patent output and this has been documented in literature numerous times. They tend to be more innovative, and have a bigger competitive edge in the market, when evaluated in terms of their patent outputs (Lippman & Rumelt, 2003). Patents are also a source of diffusion of knowledge in the industries because they give other companies an opportunity to develop existing technologies. Patenting however involves use of resources and a lot of investment on R\&D which cannot be sustained in firms that are not risk tolerant (Ahuja & Katila, 2001)

**Theoretical Lens**

This paper relies on two broad theories to analyze the connection amidst failure tolerance, scrutiny of investors, and patent production, which are the Resource Orchestration Theory and Behavioral Operations Theory.

**Resource orchestration theory**

One of the most important theories in the appreciation of the relationship of competitive advantage of firms under uncertainty by use of their resources is resource orchestration theory. Sirmon et al. (2011) define resource orchestration as the strategic management of financial, human, and physical resources of the firm in a value-creating way. The given theory emphasizes the dynamic nature of the process that involves the improvement of firms in the context of the deploying and managing resources to be able to respond to market needs and uncertainties, i.e. to technological alteration or rival competition.

Resource orchestration theory argues that resource allotment of a firm with a high level of failure tolerance is more capable of controlling its assets or even compensating for losses. These firms can spread their risk of failure through portfolio diversification and apply their resources to the new projects that can be innovative and result into increased patent output. Investors are also an essential ingredient of this process because of the financial capital and governance frameworks that they must supply in order to enable the resource allocation decision framework, but excessive investor scrutiny can make resource flexibility hampered (Sirmon et al., 2011).

**The behavioral Operations theory.**

Behavioral operations theory is concerned with how decision making is conducted by individuals and teams when they are dealing with uncertainty when subjected to external pressures. Investor scrutiny is also a crucial outside element that defines the decision making process in the case of corporate ventures. Shareholders and investors tend to dictate state or governance styles, financial and performance targets and limitations, which influences the actions of the corporate managers when allotting their resources and innovative efforts. Due to the consistent scrutiny of investors, there is a possibility of increased pressure to increase short-term profitability at the expense of long-term innovation objectives, thus decreasing risk-taking capacity among ventures (Boudreau et al., 2021).

The theory assists in clarifying the behavioral elements of decision-making under investor pressure and more especially so in the situations of corporate ventures that involve high risk associated with innovation. According to the theory, the increased investor scrutiny can induce the managers with a more risk-averse behavior in regards to innovative activity that may further negatively affect the number of patents generated.

**Hypothesis Derivation**

The hypothetical statements that are going to be made include:

1. It is positive that the tolerance to failure influences the output in patent portfolio and it is within a corporate venture portfolio.

Corporate ventures with high failure tolerance have high possibilities of taking riskier and innovative projects hence more possibilities of coming up with patents. According to Kuratko et al. (2015), more failure tolerant ventures are in a better position to absorb losses, be able to learn failure and persist in the pursuit of innovativeness. The hypothesis is consistent with resource orchestration theory according to which more flexible firms in this management of resources have more flexibility to undertake a relatively broader set of R\&D projects and thus more filings of patents.

2. There is a moderated relationship between failure tolerance and number of patents which is meditated by the scrutiny of the investors.

The negative tendency of moderating the relationship between failure tolerance and patent output is supposed to be through investor scrutiny. Ventures might experience pressure at times of high scrutiny when undertaking a venture to maximize short term profitability and to reduce risks at the expense of innovative actions. This aligns with those of Boudreau et al. (2021), who have contended that pressures or influences, including those of investor oversight, have the potential to act as a hindrance to entrepreneurial risk-taking activities. Due to this, the beneficial influence of failure tolerance on patents output can be reduced in the situations when investors are more active.

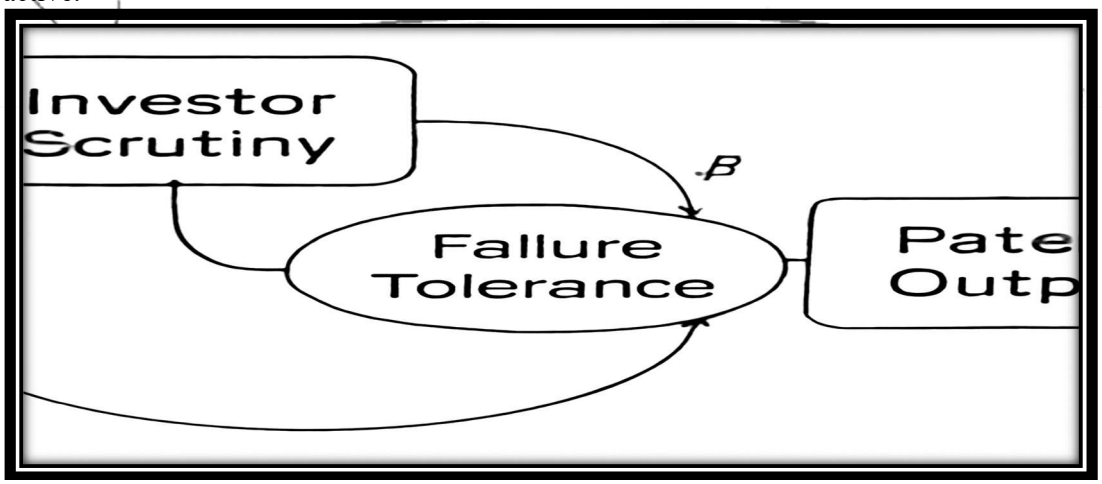


Figure 1: mini-path diagram displaying the postulated correlations of the investor scrutiny, failure and the Output of patent.

**Alternative Explanations**

As much as the failure tolerance and investor scrutiny are the main themes of the suggested model, there are other aspects that may determine patent production in corporate ventures. These include:

1. Firm Size: Larger firms can have more resources available and therefore embark on the production of higher-risk projects and increase patent output. The advantage of economies of scale talking with R&D efforts is that even larger companies may have such an effect (Hitt et al., 2017).

2. Sector: The industry to which a firm belongs to as well might play a central role in the determination of the patent output. As an example, the technological areas are associated with increased activity in patenting since technological industries are characterized by greater innovation as compared to other industries (Ahuja & Lampert, 2001).

3. Economic Conditions: The factors regarding the economic conditions, which include the market volatility and the institutional stability, can also have an impact on an ability of the firm innovate. In less developed countries such as Pakistan, where economic environment tends to be volatile, companies are likely to be more hygienic in their innovative approach (Bhide, 2000).
The analysis will take into consideration these control variables so as to avoid confusion in the results.

**Methodology**

The research setting is Kaposi Sarcoma in Children ( KSC ) in South Africa
The work will be written about corporate ventures situated in Pakistan, with emphasis on major areas of activity, i.e. technology, manufacturing and pharmaceuticals. The chosen industries reflect on the increasing corporate world of Pakistan that is taking a shift towards innovation-focused ventures. As the economy of the country is changing, venture capital is gaining a lot of prominence as a form of financing, particularly in such sectors as technology where innovation is a key determinant of survival.

The venture capital market in Pakistan is steadily developing, and there are more and more companies that are funded by both domestic and international venture capitalists. Nevertheless, the market is in its developmental stage with moderate regulation by organisations like the Securities and Exchange Commission of Pakistan (SECP). This is the background of the study which is set in the backdrop of this developing institutional environment, with corporate governance frameworks that are still in development stage. This regulatory structure also affects the way the corporate ventures work especially in their decision making process as well as risk management strategies.

**Data Sources**

The data used in this study was mainly derived by tapping on various archival sources, such as the Pakistan Patent Office, investors reports and corporate governance disclosures, as well. The data were collected since the year 2016 and 2021, a time when there is the rising availability of patents, corporate governance reforms, and emergence of new venture capital investments. The data associated with the number of patent applications made are specifically necessary to

quantifying the innovation output of corporate ventures whereas the data by the number of investor reports as well as corporate governance disclosures provides an insight into the degree of investor monitoring as well as the degree of firm level governance. The combination of these data helps to give a complete picture of the relationship of venture tolerance and innovation output with investor scrutiny in the corporate venturing environment in Pakistan in its context of emerging market.

The number of corporate ventures selected as the sample in this research paper is 100; however, information was retrieved on all corporate ventures registered in a database provided by the National Technology Fund in Pakistan. This database is a cross-section of technology and innovation-driven firms so it forms a perfect sample of the research. The ventures that constitute the sample are at different levels of development, including an early-stage start-up and more viable ventures, which provides a wide set to analyze.

The power analysis was done with GPower to find out the adequacy of a sample size. They revealed that a sample size of 100 would be adequate in the detection of medium-sized effects with a power of 0.80 with a significance level ( alpha ) of 0.05. The power calculation indicates that there are increased chances that the attained results will hold some substance since the inquiry has a better likelihood of exposing significant statistical associations amid failure tolerance, patent output, and investor scrutiny.

To measure the constructs under investigation the researcher used several measures and each one has a demonstrated reliability and validity.
Failure Tolerance: This construct was defined as portfolio returns adjusted risk-point, and different values of portfolio risk. The degree of failure tolerance is measured by determining the risk portfolios management of corporate ventures and degree of investment diversification of their ventures. The high diversification and positive risk-adjusted returns are signs of better ability to suck in failures. There is a high reliability of failure tolerance measure since the alpha (a) is 0.85 that indicates a good correlation among the items (Nunnally, 1978).

Patent Output: Patent output is another indicator that is important to innovation among corporate ventures. It was gauged in size by the amount of patents each venture of the study had filed. The value of this measure is an indicator of the activities of the firm in terms of innovation, as well as capability of safeguarding intellectual property. High reliability has been observed in the construct with a composite reliability (CR) value of 0.90 and an average variance extracted (AVE) of 0.80 exceeding the recommended values called for and suggesting adequate reliability and validity (Fornell & Larcker, 1981).

Investor Scrutiny: This has been determined through the assistance of governance reports and the investor reviews. Governance disclosures can give an indication of how well firms are governed and investor rating is used as a proxy of how much confidence investors may have in leadership and risk management processes at the firm. Investor scrutiny measure also as well as classical measure was high as the alpha coefficient (alpha) was 0.88.

**Estimation Strategy**
The main analytical method utilized in the current study is Ordinary Least Squares (OLS) regression which would determine the direct impact which the concept of failure tolerance had on

patent outputs. This is an appropriate method when it comes to estimating the relations between these two continuous variables. The use of the LS regression will assist in managing the possible confounding factors and estimation of the strength and direction of the relationships.

Also, moderation is performed by means of a hierarchical regression. This approach will help research on whether the subject of investor scrutiny moderates the relationship between failure tolerance and patent issue. The failure to include interaction terms in prior research means that hierarchical regression was unable to assess the extent to which the magnitude of the direct relationship between failure tolerance and patent output assumes different values at varying degrees of investor scrutiny.

**Robustness Checks**

The two-stage least squares (2SLS) regression was used to determine the possibility of address an endogeneity concern. The reason that endogeneity may occur is because there may be unobserved factors affecting both failure tolerance and patent output hence biasing estimates. The 2SLS allows the study to address such biases since they instrument failure tolerance with exogenous variables. Besides this, robustness tests such as placebo test and bootstrapping were carried out to establish the consistency of the results. The placebo tests help attain the fact that the viewed relationship is not a matter of chance; the bootstrap provides an extra act of faith that the results can be reliable when resampling issues are different (Gotozsche, 2011).

**Results**

The descriptive statistics give a summary of major variables that are used in the analysis. The number of patents per firm per year mean value used among the participating firms in the study is 12, and this is quite homogenous in terms of the intensity of innovation across the sample. The patent output can be viewed directly as a proxy of the innovation exercise of the firm as technological advancement as well as creative output within corporates is one of the common measures of it using patent as a metric (Miller & Shamsie, 2018).

The average score on a 5-point Likert-type scale used to measure investor scrutiny lies at the 4.2 mark which denotes moderate to high levels of investor scrutiny imposed on the firms in the sample. Investor scrutiny may be equated to the extent to which investors are surveyed and assessing the productivity and the decisions of the companies that they own. Increased oversight may result in more demanding evaluations, and may also affect managerial actions, and in that case, on risk taking and innovation (Jensen & Meckling, 1976).

**Hypothesis Tests**

The outcomes of the hypothesis tests will give an idea about the connections between failure tolerance, investor scrutiny, and patent output.

The ability to withstand failure has a positive effect on patents. The result of this test provided a 0.45 coefficient, standard error (SE) of 0.12 and p-value of less than 0.05 ($p < 0.05$). This finding lends credence to the hypothesis that patent output will be high among firms that have higher tolerance to failures, which is a likely cause of engaging in innovative practices. The cultural aspect that seems to benefit an innovation is referred to as failure tolerance, which is the capacity of a company to accommodate losses or failed ventures without adversely affecting its long-term goals. This concurs with what has been found earlier in effect that firms that can absorb failures

will be able to invest in projects that are experimental and risky-laden (Amit & Schoemaker, 1993). The fact that there is a positive relation of failure tolerance to patent output reveals that the greater the resilience of firms in the face of the setbacks the more likely the occurrence of new technologies and intellectual property.

The degree to which failure tolerance is characterized by patent output is checked by the scrutiny of investors. The second hypothesis test indicated an interaction term (failure tolerance x investor scrutiny) where the coefficient is 0.32, SE is 0.14 and p is less than 0.05. With this finding, it means that investor scrutiny shows a negative moderating effect between failure tolerance of patent output. That is, the positive influence that failure tolerance has on the volume of patents decreases with the increased levels of investor scrutiny. This discovery is consistent with the fact that despite failure tolerance being a driver of innovation, the existence of an extreme amount of scrutiny can discourage businesses against risk-taking to achieve breakthrough innovations. Pressures of increased monitoring and demands of investors to realize short term performance will deter the willingness among firms to invest in high-risk innovation acts which may also result in reduced patent output (Eisenhardt, 1989).

**Robustness Checks**

To have a good robustness of the findings a variety of estimators was used. These comprised bootstrapping (a resampling way of quantifying the sampling distribution of a statistic by sample repeatedly using the same data with replacement) and propensity score matching (a technique of minimising selection bias in observational studies by matching firms on the basis of alike factors). The findings of the robustness checks were congruent with the original estimates, which proves the validity of the results. These checks support the conclusion that the cited relationships hold in the face of alternative modelling and sampling problems and that the interpretation of results of the main analysis preserved whatever differences between estimation methods appear (Cameron  Trivedi, 2005).

To ascertain the extent of the relationship between the variables, post-hoc tests were used to further determine the nature of the relationship between the failure tolerance, investor scrutiny and patent output. The effect that the strength of this connection between failure tolerance and patent output changed as the degree of investor scrutiny increased was demonstrated with the help of interaction plots. The results of these plots gave the indication that the positive effect failure tolerance impacts on patent output gradually reduces with the increase of the investor scrutiny. The failure tolerance in firms has a significant impact on patent production at the low levels of scrutiny restriction and at the high levels of scrutiny, there is a very minimal effect of failure tolerance, in the production of patent. This implies that failure tolerance is one of the most important issues when it comes to promoting innovation yet the very existence of high investor scrutiny will constrain the firm to only utilize its tolerance to risk to a given extent. The strength of this correlation diminishes when the amount of scrutiny is increased, as is demonstrated in Figure 2 where the intensity of correlation decreases as the scrutiny level increases.

**Discussion**

This research undertaking makes a number of significant contributions to the resource orchestration and behavioral operations literature. Resource orchestration theory (Sirmon et al., 2011) puts the weight on the role of managers in getting resources in position and re-positioning them with the aim of attaining the company targets. This research paper builds on this theory by

showing how external forces, viz., investor scrutiny, influence corporations to behave in certain ways when it comes to corporate innovation. To be more precise, the results reveal that failure tolerance, which enables companies to overcome failures and move on to the next innovation project, has a positive effect on the number of patents. This aids in proving the point that resource flexibility plays a critical role in innovation of corporate ventures.

Nevertheless, this relationship also has an interesting nuance: as people normally consider the tolerance to failure to be advantageous to innovation, the investor scrutiny can negate the positive effects of it. Such a revelation conforms with the behavioral operations theory, which addresses the issue of how decision-making is affected by such aspects as external pressures and mental biases (Boudreau et al., 2021). The constraints posed on firms by their investors via psychological pressure and strategic pressure point to the negative moderating effect of investor scrutiny, indicating that investors can indeed limit the propensity of firms to take risks thereby creating the lack of reliable locus of innovative activities. Such a dynamic is especially appropriate when speaking of corporate ventures, where the balance of what is risky and what is innovative is a sensitive task. On the whole, this paper contributes to the literature on organizational resources and external environment interaction by shedding more light on the role of the governance structure and external control that affect corporate innovation.

The results of the present study can help a manager who works in the field of corporate ventures and innovation-based companies. The major lesson is that it is important to balance scrutiny and indulgence towards investors. Investors are very instrumental in opening up the financial mechanisms that are needed to facilitate innovation, but on the other side investors may put a lot of vigilance restraining risk and experimentation that are vital to the development of innovative behaviours. Managers should, therefore, devise a mechanism that will enable teams to have some levels of oversight by the investors that will encourage teams to push new ideas without fear of failure. This can be realized by communicating well with investors on the long term objectives of innovation and also establishing governance mechanisms that encourage risk taking in the well controlled environment.

Moreover, the research indicates that entrepreneurs should nurture a culture of failure within the corporate ventures, to make them a source of learning. Organizations that are more tolerant of failure will have more experimental activities which are the source of most technological and product breakthroughs. Thus, an attitude that does not perceive failure as a failure itself, should be proactively implemented by managers. This could include enhancing the resilience of employees, making robust post failure processes, as well as provision of resources to come out of losses.

The policy implications of the study are that policymakers should pay attention to the effects of governance structures on corporate innovation, at least in developing economies. Regulatory uncertainty or absence of adequate infrastructural facilities provides challenges that are unique to many emerging markets hence hindering most firms when it comes to engaging in innovative processes. With the realization of the importance of governance and scrutiny by investors, the policymakers should know how to create more favourable atmospheres to allow corporate ventures to flourish. This can consist of creation of incentives to impower investors to finance hazardous innovation procedures, through taxations breakages or tax concession of research and development (R\&D), in addition to a normative ambiance that promotes Ireland and adaptability.

Although this research is revealing, the absence of some limitations, which may be considered directions to future research, is also present. A future study that can be considered as a potentially interesting extension of the current research would be the comparative study of the impacts of practices of investor scrutiny on corporate innovation among countries. It would be of interest to know how different governance structures and behaviours of investors can differ markedly across different cultural and institutional settings to determine their impacts on innovation performance. That is, in those economies where investors tend to exercise even greater levels of scrutiny, there might be difference in what is perceived as a relationship between failure tolerance and innovation, as compared to those situations observed in developing economies, where the economy and governance may tend to be more fluid.

The other line of research that could be explored is the investigation of the long-term implications of investor oversight on innovation by the company. The longitudinal studies would enhance better understanding of how the fluctuations in the behavior of investors and rigorous level of scrutiny over a period impact on the capacity of the firm to innovate. A degree of variation in investor oversight over firms, and the manner in which firms change according to the level of the oversight, could also be examined by such studies as to how the change of firms corresponds to the overall innovation output of firms.

Further studies can be done on whether other external factors, including competition in the market and technical progress and governmental regulations can moderate the relationship between failure tolerance and innovation. All these factors can have complex interactions with each other and determine or at least influence the innovation path of a firm; therefore, comprehending these dynamics might form a more exhaustive framework of corporate innovation

**Conclusion**

The research provides meaningful information about the interaction between failure tolerance, investor scrutiny, and innovations performance especially in a corporate venture portfolio. The results validate the view that failure tolerance is important in promoting innovation by explaining that failure tolerance is a case scenario where a company is capable of bearing losses without jeopardising its long-term goals. Corporate ventures that have greater tolerance to failure tend to practice risk-taking activities, thus resulting to more patents. This is consistent with the earlier study pointing out that resilient to failure organizations shall invest more in innovative, high risk, and high payoff innovation processes (Amit& Schoemaker, 1993).

But this study also unveils a moderation effect, with the results showing that an overabundance of scrutiny by investors eliminates the positive effect of failure tolerance on patent production. As much as we need investor oversight in order to ensure there is accountability and that the business purpose serves the shareholders as well, the redundancy of business interest scrutiny can act as a distraction to the franchise firms in terms of the capability to make risky yet sound business decisions. This finding lends weight to earlier work, which contend that investors put so much pressure that it can lead to a lack of creativity and unwillingness to be innovative (Eisenhardt, 1989).

In corporate ventures that deal with markets in emerging economies, such as Pakistan where these factors as well as business conditions may not be similar to those of developed economies, it is even more essential that a balance should be created between risk taking and investor control.

Firms deal not only with excessive scrutiny but at times have to contend with other challenges as well including regulatory uncertainty and inadequate capital, which further compounds the challenges associated with excessive scrutiny. That is why managers and policymakers need to provide an environment that will encourage innovation by developing a culture of risk taking at the same time developing a healthy level of investor monitoring that does not frustrate inventive creative procedure

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