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ARTICLE

Venture Capital Finance-Eliminating Double Sided Moral Hazards through Trade-off between Economic and Behavioural Economic Aspects-A Case Analysis

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ABSTRACT

Venture capital finance has two aspects, the economic aspect and the behavioural economic aspect. The economic aspect includes issues such as conflict of interest between the entrepreneur and the venture capitalist (VC), asymmetric information, moral hazard, and compensation issues for both the parties. The behavioural economic aspect is related to relational factors such as empathy and a feeling of fairness and trust shown by both the parties.

Therefore, while deciding the financer, entrepreneur should consider both relational aspect and value add services of the financier and strike optimal trade-off. The ensuing case analysis has been carried out focusing on elimination of double-sided moral hazards through a proper trade-off between economy and behavioural economic theories (aspects).

The performance of the venture can be enhanced by balancing both of these theories in practice. An equity distribution that represents economic reward is a source of motivation for both the parties to put optimal efforts towards the success of the venture. This was seen in the case analysis, when the parties perceived the initial equity distribution agreement as fair, the satisfaction level of all the parties increased, leading to the reduction in the possibility of double-sided moral hazard and ensuring the success of the venture. Moreover, the analysis shows that information sharing and two-way communication increases trust and improves decision quality. It further focusses on how feedback and proper work distribution results in efficiency of performance for each of the stakeholders, leading to reduced probability of double-sided moral hazards.

1. Venture Caoital Finance-Introduction

A 'start-up' is defined as an activity that involves the discovery, evaluation and exploitation of novel opportunities to introduce new goods and services based on the innovative ideas and knowledge of an entrepreneur, who is pro-active in conceiving the untapped market opportunities [1]. The entrepreneur lacks necessary capital and therefore seeks financial assistance from outsiders such as venture capitalists (VC). The VC provides financial assistance along with certain value-added services such as evaluating business opportunities, technical and managerial assistance, assistance in designing

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growth strategies, and other situation-specific corporate consultancy to leverage the success of the start-up being financed [2]. Financial support by a VC usually passes through different phases such as start-up, expansion and growth stage, and later stage. The VC specialises in minimising the cost of funds by creating a pool of funds mobilised from investors (limited partners) with the aim to invest in start-ups. Branscomb and Auerswald concluded that these start-ups face the challenge of a high rate of failure, resulting in a high level of risk for both the entrepreneur and the VC. The type of risks faced by the entrepreneur and VC include moral hazard, adverse selection and compensation issues [3].

In venture capital finance, there are two aspects, the economic aspect and the behavioural economic aspect. The economic aspect includes issues such as conflict of interest between the entrepreneur and the VC, asymmetric information, moral hazard, and compensation issues for both the parties. The behavioural economic aspect is related to relational factors such as empathy and a feeling of fairness and trust shown by both the parties.

Therefore, while deciding the financer, entrepreneur should consider both relational aspect and value add services of the financier and strike optimal trade off.

2. Review of Literature

The principal-agent theory assumes that self-interested agents work towards maximising their own wealth, which may not be in the best interest of wealth maximisation for the principal. Empirical research by Baker and Gompers suggests that earlier the relationship between the entrepreneur (agent) and the VC (principal) was assumed a pure agency relationship, which made the VC suffer from *single-sided moral hazard* [4]. However, Smith argues it is a relationship between equal parties, as both contribute towards wealth creation and are capable of contributing towards the success of the venture [5]. Therefore, there is the possibility of *double-sided moral hazard* where both parties have an incentive to *shrink*.

According to Richard Fairchild, the issue of double-sided moral hazard might exist at two different stages of the venture's journey to success. First, both the entrepreneur and the financier (VC or angel investor) contribute positively towards the success of the venture and create value for the venture; this might motivate both of them towards bilateral *effort shirking*. Second, at a later stage if the venture is successful, double-sided moral hazard might arise when both are involved in an effort to exert project *expropriation*-stealing the idea of the project[6].

Mehta discusses the issue of *hidden information*; this issue arises when the agent has access to some information that the principal has not observed, and the agent uses the information for business decisions. However, the principal only interprets that the agents used the information in their own best interest and not in the interest of principal. This happens due to lack of information sharing, absence of mutual trust and co-operation and ultimately results in conflict [7]. *Asymmetric information* about the venture influences the subjective assessment by both the parties about the future performance of the venture. The party who is privy to negative information about the future of the venture is most likely to defect by choosing short-term incentives resulting in a loss for the other party [8].

Klausner discusses that conflict of interest arise when an entrepreneur (i) fails to exercise optimal efforts, (ii) neglects opportunities, or (iii) sometimes takes very high-risk or very low-risk decisions, which results in a loss for the venture. This requires the VC to have regular monitoring of entrepreneur's functioning and decisions, resulting in increased '*agency cost*' [9].

De Bettignies and Brander discuss the *level of double-sided moral hazard*, it exists when the entrepreneur is forced to surrender some of the ownership related benefits to have the benefit of managerial inputs from the VC's expertise, thereby generating negative incentive for the entrepreneur in putting whole-hearted efforts for the success of the venture [10]. Smith discussed the bargaining power of the VC has a greater role in leading to *opportunism*-VCs can decide not to provide further funding support under staged financing agreement when the bargaining power of the entrepreneur is diminishing [11]. However, this issue does not arise in the case of a bank finance, since the entrepreneur is not required to give equity rights but instead is required to service the loan [12].

Chang and Hu discuss how behavioural biases in analysing the effect of incentives might affect moral hazard. The VC, being self-interested to maximise their profits, chooses to finance the profitable project of the entrepreneur who is in turn motivated to maximise their utility. Accordingly, an optimal contract should consider providing an appropriate share of profit for the entrepreneur, matching the level of efforts put in; otherwise, this might work as an impediment to a VC's profit maximisation [13].

Aghion and Bolton state that ventures (start-ups) yield both monetary benefits known as profit, which are verifiable, and personal benefits (benefits accruing only to entrepreneur), which are non-verifiable. The magnitude of non-verifiable benefits affects the decisions of an entrepreneur in pursuing the success of the venture, whereas the magnitude of verifiable benefits affects the actions of VC in continuing the relationship in the venture [14].

Behavioural economists consider that certain psychological factors such as feelings of trust, fairness, and

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empathy affect the relationship between the VC and the entrepreneur [15-17]. A shared feeling of fairness affects the commitment of the parties to a given decision, and is the critical success factor influencing the performance of the venture [18-19]. Relational rents can be created by enhancing trust and communication between the VC and the entrepreneur [20]. Thus, the agency problem will be mitigated[21]. Empathy, which is perceived as an important factor for the success of the venture, can boost mutual trust, which is helpful in reducing double-sided moral hazard during the development of the venture. Therefore, empathy results in increased payoff for both the parties [22].

The interaction within the entrepreneurial team members is another important factor affecting the performance of the venture. Nicola Breugst et al. discuss that the equity distribution representing economic reward affects the level of interaction and communication between the members of the entrepreneurial team. Justice in equity distribution is perceived as one of the factors that increases team attraction in creating value for the venture and reduces team repulsion [23]. Team cohesion and intra-team trust enhances team attraction; on the contrary, social distancing and relationship conflict can lead to team repulsion arising out of team's negative thoughts, feeling and behaviour. Research shows that team satisfaction, team decision quality and venture performance has a negative correlation with relationship conflict [24].

The feeling of the dyad is the trigger point for co-operation and mutual trust between entrepreneur and VC, which is necessary for the success of the venture. Shepherd and Zacharakis proposed that the entrepreneur can establish trust with the VC by showing signs of commitment and being fair in their dealings, this can work in the other direction. They also emphasised the importance of open and frequent communication between entrepreneur and VC. They support that frequent and transparent communication between entrepreneur and VC can increase the feeling of fairness and trust thereby helping in weeding out agency problems[25]. Frequent interaction and information sharing promotes co-operation between entrepreneur and VC, which is critical for the success of the venture [26-27].

Study done by Utset explains about perception of fairness, bargaining power and retaliation. Incidence of retaliation by one of the parties is the result of their individual perception about each other's actions. Perceiving the offer to be unfair, the responder may proceed to engage in sabotage. Entrepreneur may engage in retaliation when encountered with an unfair offer under behavioral assumption of reciprocal fairness. If an entrepreneur retaliates against an unfair offer, they gain some utility even though the net monetary returns are negative [28].

To regulate behaviour and ensure the rights and obligations of both the parties, a legal contract is necessary between VC and entrepreneur. The contract is to state the regulations regarding control rights, cash flow rights, liquidation rights and related issues. Contracting and performance of the venture is affected by the legal system, corporate governance and culture Bruton et al. concluded that the performance of a venture is positively correlated with the *strength of the legal system* governing the venture capital financing[29]. Allen and Song found that there is a negative correlation between the venture capital contract and rule of law. Hence the countries with weak '*law and order*' have higher levels of venture capital financing because the level of co-operation and performance of the venture are more dependent on the implicit relationship between VC and entrepreneur than the explicit contract [30].

Venture performance is largely dependent upon the strength of the contract and the *level of governance* induced by the *legal system*. A strong legal system combined with a strong contract leads to a fear of punishment for failure, which thereby increases the entrepreneur's performance in a venture. However, *empathy and co-operation* are jeopardised due to the strong contract. Therefore, due to weak legal systems, there is not much scope for a strong contract; hence, empathy, trust and co-operation can be a substitute for governance. The researcher found that, when the governance and legal system are well developed and combined with low *culture closeness* a tough contract is more desirable. On the other hand, when the governance and legal system are not so developed, and culture closeness is high then a soft contract is optimal.

Most venture financing contracts provide *multi-level measures* to protect the investment of the VC. The initial agreement is relatively tough compared to the subsequent agreement; this is to protect the VC if the entrepreneur has over-stated the business opportunity. The protection requirement for the VC diminishes with the passing of time, as the VC is aware about the business and the outcome of the venture. Smith concluded that to maximise the value of the venture and to avoid the problem of shirking and opportunism the contract should have the provision for adequate incentives for the VC [31].

The existence and execution of an *optimal contract* comprising of pure equity financing is feasible only when total social surplus is greater than threshold limit. Furthermore, they also suggest that within the optimal contract set there is a scale (range) of joint debt-equity financing that addresses the issue of double-sided moral hazard [32]. Moreover, researchers suggest that an optimal venture capital financing contract should include a fixed payment to the VC and residual claim to the entrepreneur. This will

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reduce *agency cost* and conflict resulting due to economic aspects [33]. While discussing optimal financing contracts Hellman suggested two propositions, (i) to ensure increased entrepreneurial efforts, the entrepreneur should be given equity compensation, and (ii) granting the *control rights* to VC if the benefits from replacing the entrepreneur are very high [34].

Kaplan and Stromberg discussed measures of cash flow rights, control rights- liquidation rights. Accordingly, there should be a perfect correlation between these rights and performance of the venture. When the venture is showing continued improved performance, the optimal contract should provide for maintaining VC's cash flow rights and the relinquishing of control rights by VC in favour of entrepreneur. On the contrary, the VC is to be given full control (liquidation rights) of the venture if it shows poor performance [35]. Klausner and Litvak discuss the topic of control rights (the right to hold board seats and the right to veto certain major managerial decisions) and state these rights should be aligned to the incentives accruing to VC and any type of misalignment should be dealt with through financing contract [36].

3. Case Analysis

The success of start-ups financed by VC is dependent upon harmonious relationship, mutual co-operation and trust between the entrepreneur and the VC, but how these factors can be inculcated is a matter of research. In the analysis, it has been shown how mutual trust, sharing of information, and fairness of contracts between all the stakeholders of the venture can help in the success of the venture.

3.1 Background of the Venture

Alphanzo Greens is a start-up financed through venture capital financing. The start-up is in the green energy sector with following objectives:

(1)Promote the use of non-conventional sources of energy,

(2)Provide assistance to rural masses in setting up solar power plant (solar panel) at the roof of their residence/ commercial premises.

The availability of conventional energy is depleting day-by-day, and this source is having certain environmental issues-environment pollution. To overcome the ill effects of using conventional energy sources, awareness among masses is must about non-conventional sources of energy. The use of non-conventional sources of energy is further helpful in reducing the dependence on conventional sources of energy and help the overcoming the shortage of electricity supply. The probability of success of the start-up was very high as it was set up in the desert of Rajasthan, where direct Sun-Light is available for about 9-10 months in a year, therefore setting up of solar power station and solar power panel on the roof of residential/ commercial premises can help in generating enough solar power throughout the year. The start-up has five co-owners (entrepreneurs) and it has been financed jointly by Mr. Vishnu and Ms. Laxmi (henceforth referred as investors) using the pattern of venture capital financing. Apart from providing financial support, the investors have supported the venture by providing certain value-added services.

3.2 Financing Decision Dilemma and Trade-off

At the time of decision making about the source of financing for the start-up, the entrepreneurs were in a state of confusion. One option was to get funding support extended by rural development bank. The second option was investors, who proposed to provide financial support along with certain value-added services, like helping the venture (entrepreneurs) by providing managerial support such as identifying premium location for the venture, construction of the business premises and providing managerial decision support. The entrepreneurs arrived at a trade-off between the commercial services of rural development bank and the value-added services offered by the investors and finally decided to accept the funding proposal of the investors. This was an example of *striking a trade-off between value-added services and commercial aspects*.

3.3 Equity Distribution

At the early stage of financing, to keep both the parties motivated in exerting optimal efforts for the success of the venture, the parties discussed very clearly and honestly the equity distribution – representing economic reward. The equity distribution was properly aligned on the basis of (1) level of efforts put in by each of the parties, (2) time spent by each of the party in managing the business activities of the venture, (3) premium/reward for contributing ideas for the business, and (4) assisting in advancing the business of the venture. All the parties perceived the equity distribution as justified and fair, resulting in satisfaction for all the parties leading to the minimisation of the probability of double-sided moral hazard.

3.4 Legal System and Protection of Stakeholders' Interest through Contracting

The kind of legal system and cultural closeness or familiarity of parties with each other are the pillars of venture financing contracts. Research has propounded that the

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presence of strong legal system combined with low cultural closeness requires a strict contract to safeguard the interest of all the parties. Whereas, when the legal system is not so strong and cultural closeness is high then a less stringent provision in the contract helps in developing the feeling of trust and mutual co-operation. In the country of this venture, the second proposition would have been appropriate but due to lack of familiarity between all the parties the initial contract contained strong provisions to avoid the misuse of the resources and opportunity by either of the parties. However, this initial contract was not effective and created a feeling of mistrust and lack of confidence between the parties, which lead to dissatisfaction. These tough provisions created hurdles in managerial decision-making, leading to poor performance and delays in making decisions. Upon considering these challenges, a meeting of all the parties helped in understanding each other better. To show this greater degree of familiarity, and restore the trust and mutual co-operation, the tough provisions of the contract were relaxed, which helped in developing mutual trust, co-operation and achieving better results for the venture.

3.5 Conflict between the Parties Due to Information Asymmetry and Lack of Feedback System

At a subsequent stage of the venture, two types of conflicts were encountered, (1) among the members of the entrepreneur team, and (2) between the entrepreneur team and the VC. An analysis of the root causes of the conflicts helped in identifying factors such as role ambiguity, lack of clarity of work distribution and poor communication between all the stakeholders were responsible for the conflict. These conflicting situations led to ineffective decision-making, resulting in an adverse impact on the performance of the venture.

By means of repeated discussions and information sharing between the stakeholders, all the parties unanimously agreed for a formal written agreement containing the provisions of work distribution, authority, and responsibility of each of the parties to the venture. This honest effort by all the parties in resolving the conflicts helped in arriving at a proper work distribution to avoid role ambiguity, and the conflicts were resolved resulting in improvement in the performance of the venture.

This experience shows that clear work distribution, a regular feedback mechanism and optimal contract helped in developing mutual trust between the parties and improved decision quality. This meant that now both the entrepreneur and the VC could make more efficient decisions and execute them with more freedom and without any controversy with other members of the venture.

4. Conclusion

Venture capital finance has two theories-economic theory and behavioural theory. The performance of the venture can be enhanced by balancing both of these theories in practice. An equity distribution that represents economic reward is a source of motivation for both the parties to put optimal efforts towards the success of the venture. This was seen in the case analysis, as when the parties perceived the initial equity distribution agreement as fair, the satisfaction level of all the parties increased, leading to the reduction in the possibility of double-sided moral hazard and ensuring the success of the venture.

The analysis further shows that the optimal contract should balance the legal aspects and cultural closeness to establish mutual trust and co-operation, which helps in removing the conflict between parties, increasing satisfaction and enhancing decision making.

Moreover, the analysis shows that information sharing and two-way communication increases trust and improves decision quality. It further focusses on how feedback and proper work distribution results in efficiency of performance for each of the stakeholders, leading to reduced probability of double-sided moral hazards.

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