

**BOOTSTRAP FINANCING ON OPERATIONAL
EFFECTIVENESS OF NEPALESE SMEs**

BY

Upakar Lama

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RECOMMENDATION

CERTIFICATION

DECLARATION OF AUTHENTICITY

I, Upakar Lama, declare that this GRP is my own original work and that it had fully and specifically acknowledged wherever adapted from other sources. I also understand that if at any time it is shown that I have significantly misinterpreted material presented to SOMTU, any credits awarded to me on the basis of that material may be revoked.

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TABLE OF CONTENTS

<i>RECOMMENDATION</i>	ii
<i>CERTIFICATION</i>	iii
<i>DECLARATION OF AUTHENTICITY</i>	iv
<i>ACKNOWLEDGEMENTS</i>	v
<i>TABLE OF CONTENTS</i>	vi
<i>LIST OF TABLES</i>	viii
<i>LIST OF FIGURES</i>	ix
<i>ABBREVIATIONS</i>	x
<i>EXECUTIVE SUMMARY</i>	xi
CHAPTER I: INTRODUCTION	1
1.1 Background of the study	1
1.2 Statement of Problem.....	2
1.3 Objectives of the Study	4
1.4 Research Hypothesis	4
1.5 Definition of Terms.....	5
1.5.1 Dependent Variables	5
1.5.2 Independent Variables	6
1.6 Significance of the Study	7
1.7 Limitations of the Study.....	8
1.8 Structure of the Body	8
CHAPTER II: REVIEW OF LITERATURE AND CONCEPTUAL FRAMEWORK	10
2.1 Literature Review of Bootstrap Financing.....	10
2.2 Review of Operational Effectiveness.....	18
2.3 Conceptual framework.....	20
CHAPTER III: RESEARCH METHODS	21

3.1 Research Design.....	21
3.2 Population and Sample	21
3.3 Instrumentation	22
3.4 Data Analysis	22
3.5 Reliability of Data.....	22
CHAPTER IV: RESULTS AND ANALYSIS	24
4.1 Respondents' Profile.....	24
4.2 Correlation between Dependent and Independent Variables.....	32
4.3 Regression analysis acceptance of information disclosure	35
4.4 Summary of Hypothesis.....	39
4.5 Summary of Major Findings.....	40
CHAPTER V: DISCUSSION, CONCLUSIONS AND IMPLICATIONS	42
5.1 Discussion	42
5.2 Conclusion	43
5.3 Implications.....	43
REFERENCES.....	45
ANNEX	48

LIST OF TABLES

Table 1: <i>Coefficient of Cronbach's Alpha</i>	23
Table 2: <i>Distribution by Gender</i>	24
Table 3: <i>Distribution by Age Group</i>	25
Table 4: <i>Distribution by academic qualification</i>	25
Table 5: <i>Distribution by Work Experience</i>	26
Table 6: <i>Distribution by Firm Age</i>	26
Table 7: <i>Distribution of Delaying Payments tool</i>	27
Table 8: <i>Distribution of Minimizing Accounts Receivable</i>	28
Table 9: <i>Distribution of Private Owner Financing</i>	28
Table 10: <i>Distribution of Joint Resources Utilization</i>	29
Table 11: <i>Distribution by Cost Reduction</i>	30
Table 12: <i>Distribution by Speed</i>	31
Table 13: <i>Distribution by Flexibility</i>	31
Table 14: <i>Correlation between Independent Variables and Cost reduction</i>	32
Table 15: <i>Correlation between Independent Variables and Speed</i>	33
Table 16: <i>Correlation between Independent Variables and Flexibility</i>	34
Table 17: <i>Regression Analysis of Bootstrap Financing Tools on Cost Reduction</i>	35
Table 18: <i>Regression Analysis of Bootstrap Financing Tools on Speed</i>	36
Table 19: <i>Regression Analysis of Bootstrap Financing Tools on Flexibility</i>	38
Table 20: <i>Summary of Results of Hypothesis Testing</i>	39

LIST OF FIGURES

Figure 1: Conceptual Framework.	20
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ABBREVIATIONS

CR	-	Cost Reduction
DP	-	Delaying Payments
JR	-	Joint Resources Utilization
MA	-	Minimizing Accounts Receivable
MS	-	Microsoft
PO	-	Private Owner Financing
POH	-	Pecking Order Theory
S. D.	-	Standard Deviation
SME	-	Small and Medium Enterprise
SPSS	-	Statistical Package for the Social Sciences
VIF	-	Variance Inflation Factor

EXECUTIVE SUMMARY

The objectives of this research are to evaluate the tools of bootstrap financing such as; delaying payments, minimizing accounts receivable, using private-owner financing, and joint resources utilization, and to identify the impact of bootstrap financing on operational effectiveness of Nepalese SMEs.

The population of this study are the individuals above 18 years who have been working as manager and operation head in small and medium enterprises. This study consists of 386 participants (sample) which has been derived by using the metrics developed by Godden in 2004.

This research is based on primary data collection. Questionnaire were distributed on printed form as well as through emails, and social media. The sampling technique that has been adopted in this research is convenient sampling technique. Descriptive, correlation and regression analysis has been used in this study. Moreover, the descriptive research such as mean, standard deviation, minimum and maximum values of variables are used to describe the bootstrap financing tools used by SMEs. Correlation analysis is used to identify direction and magnitude between two sets of variables. Along this, regression analysis is used to find out the influence of independent variables over dependent variables.

The findings suggest that there exists positive and significant relationship between bootstrap techniques and operational effectiveness of Nepalese SMEs. Except joint resource utilization with cost reduction, and delaying payments on flexibility, every bootstrapping tools have significant impact on cost reduction, speed and flexibility.

There is need of internally oriented financing strategies than market focused strategies for small and medium enterprises. Small and medium enterprises are better off by taking bootstrapping since it helps to have optimum utilization of available resources.

CHAPTER I

INTRODUCTION

1.1 Background of the study

Financing is considered a scarce resource for new companies, it is often difficult for start-ups to choose among the various options available to them such as bank loan, venture capital, crowdfunding, and bootstrapping (Baker & Nelson, 2005). Starting and running a business can be challenging due to two factors: the liability of newness and the smallness of the operation (Witt, 2004). Due to the various factors that entrepreneurs face when it comes to financing their ventures, they often have a hard time accessing finance (Basu & Parker, 2001). This is typically the reason why many ventures fail.

One of the neglected segments in the academic world is bootstrap financing. This can be a great alternative for many start-ups and ventures (Auken & Neeley, 1996). Bootstrap financing is a process that enables businesses to meet their immediate needs without relying on long-term external finance (Freear et al., 1995). As mentioned by Auken and Neeley (1996) many small firms find themselves in a difficult situation when it comes to raising capital through bootstrap financing. This method of funding allows them to raise funds without having to go through traditional means. Bootstrapping is a strategy that helps minimize risk while increasing profitability (Carter & Auken, 1990).

Before a venture firm uses other sources of financing, it should exclude external sources of debt and equity financing. Instead, it should use other sources such as credit cards, home equity loans, and supplier credit (Auken & Neeley, 1996). Bootstrap financing clusters established by Winborg and Landstrom (2000) include 28 strategies to sustain in the market. These 28 strategies were identified by Winborg and Landstrom in their book "Beloit financing". Some of these include delaying payment to suppliers, choosing customers who pay immediately, negotiating favorable terms with suppliers, hiring temporary workers, taking advantage of low salary, bartering for equipment purchases.

The adoption of bootstrap technique results in the operational performance and effectiveness of small and medium enterprises. Operational effectiveness is the ability of establishing processes based on the core capability of the organization (Porter, 1996). It is the utmost priority of organizations to seek efficiency of business operations to

improve quality, productivity or competitive positioning in the market (Stephen, 2014). According to Hill (2005), it includes cost, quality, flexibility, speed, and reliability dimension of performance.

Myers and Majluf (1984) postulated pecking order theory by saying the cost of financing increases with asymmetric information. First, financing company's operation by using retained earning then debt and then equity are assumed in pecking order which is quite relatable in this because of focusing on internal financing sources by applying bootstrap financing tools.

Small ventures are not getting the financial help they need from traditional sources such as banks and venture capital due to agency problems resulting from asymmetric information (Petty & Bygrave, 1993). Mainly information asymmetric is the problem they face in presenting their annual financial statements. Some entrepreneurs are reluctant to external finance because of fear of losing control over their firm (Manigart & Struyf, 1997). Baker et al. (2000) argued that due to overconfidence and inexperience of the business, capital available from external sources are generally not invested wisely, putting firms at additional costs and significant disadvantage of not getting adequate returns. So, instead of generating large sums of money, these inexperienced new firms can be better off by converting fixed costs to variable costs. In words of Bhide (1992), true entrepreneurial spirit is often showcased by the owner's ability to creatively search and use bootstrap financing. There are various factors that small and medium enterprises have to consider when it comes to choosing a non-traditional method of financing to make operational effectiveness. This study focuses on the impact of bootstrap techniques on SMEs' operational effectiveness.

1.2 Statement of Problem

Bootstrap financing techniques are considered highly creative ways to acquire the use of resources not relying on borrowing money or raising financing from traditional sources (Freear et al., 1995). The study of Freear et al. (1995) in the Northern Ireland context, explains that approximately 95 percent of the businesses use bootstrapping methods (Harrison & Mason, 1997). Regarding the financial access for the SMEs, various studies have been done regarding different external financing methods. As researchers are focused on analysis of venture capital firm, and bank loans, they have been excluding one of the preliminary financing techniques of bootstrap

financing. Much evidence points out that bootstrapping plays a vital role in the operational effectiveness of small and medium sized enterprises, however this strategy has been given very little attention in academia in Nepal.

Though it seems to be in practice directly or indirectly by many entrepreneurs, the lack of academic acknowledgement has underestimated the impact of bootstrap financing on operational effectiveness and performance. In Nepal, there is very little research done regarding this topic. This is why many entrepreneurs, academicians and researchers are also unaware about the benefit that the small and medium sized enterprises can take by using bootstrapping as one of their financial strategies. In more specific terms, small and medium sized enterprises try to get large amounts of capital from banks and venture capital companies (Bhide, 1992). Due to this, much research has focused on knowing the constraints in the supply of institutional finance, rather than knowing the way out from the demand side of small business regarding the financial need and access (Cressy et al., 1996).

The empirical studies on the area of bootstrap financing and operational effectiveness are rarely available in the context of Nepalese small and medium sized enterprises. The research based on size, technological orientation, the stage of development and risk, owners' characteristics, such as their ability, growth ambitions, education and gender are available in worldwide research papers. The core operational variables such as cost, speed and flexibility are not researched in the case of Nepal, so this research paper has essence for study. The research paper is out of curiosity and necessity to know the impact of bootstrapping on operational effectiveness of Nepalese SMEs. The bootstrap financing technique is in practice directly or indirectly in the world business environment. Nepal is no exception too. In recent context, entrepreneurs and SMEs in Nepal are encouraged to bring changes which can be achieved by knowing the bootstrap financing tools. Therefore, this study intends to examine the impact of the bootstrap financing on operational effectiveness of Nepalese SMEs and determining factors behind the use of these tools. The purpose of this research paper can be specified by formulating the following research questions:

- What are the tools of bootstrap financing used by Nepalese SMEs?
- Does bootstrap financing have an impact on operational effectiveness of Nepalese SMEs?

1.3 Objectives of the Study

This study intends to examine the impact of the bootstrap financing on operational effectiveness of Nepalese SMEs and determining factors behind the use of these tools. The specific objectives as follows are taken into consideration.

- To evaluate the tools of bootstrap financing such as; delaying payments, minimizing accounts receivable, using private-owner financing, and joint resources utilization.
- To identify the impact of bootstrap financing on operational effectiveness of Nepalese SMEs.

1.4 Research Hypothesis

Ricardo et. al (2009) have stated that organizations are increasingly investing in enterprise information systems with the aim of improving operation of the business and to gain competitive advantage in the market. Based on the study qualitative and quantitative three stage methodological approach: quality of information from technology innovation effectiveness, quality and speed from operational effectiveness are necessary alignment between innovation and operational effectiveness.

This study has found four factors that explain the alignment between technology innovation effectiveness and operational effectiveness.

Winborg and Landstrom (2000) identified the six different clusters of bootstrap financing methods by unstructured interview with small business managers, accountants, consultants, bank officials and researchers. Those clusters are: 1) delaying bootstrappers; 2) relationship-oriented bootstrappers; 3) subsidy-oriented bootstrappers; 4) minimizing bootstrappers; 5) non-bootstrappers and 6) private owners. Their study showed that the groups of financial bootstrappers show difference in their orientation.

Based on the above literature and findings from those literatures, the following hypothesis has been developed:

- H1: There is significant impact of delaying payments on cost reduction.
- H2: There is significant impact of minimizing accounts receivable on cost reduction.
- H3: There is significant impact of private-owner financing on cost reduction.
- H4: There is significant impact of joint resources utilization on cost reduction.
- H5: There is significant impact of delaying payments on increased speed.

- H6: There is significant impact of minimizing account receivable on increased speed.
- H7: There is significant impact of private-owner financing on increased speed.
- H8: There is significant impact of joint resource utilization on increased speed.
- H9: There is significant impact of delaying payments on increased flexibility.
- H10: There is significant impact of minimizing account receivable on increased flexibility.
- H11: There is significant impact of private-owner financing on increased flexibility.
- H12: There is significant impact of joint resource utilization on increased flexibility.

1.5 Definition of Terms

1.5.1 Dependent Variables

This research paper is focused to look at the impact of independent variables on dependent variables. Dependent variables are the impacts for the SMEs to use bootstrapping techniques. The dependent variables include following points which signifies the reason behind the use of bootstrap financing.

- **Cost Reduction**

For this factor, SMEs' strategies to reduce the cost of doing business are included. The attributes for cost reduction reason are:

- Reduction of operational cost
- Reduction of investment cost
- Avoidance of high cost

- **Speed**

For this factor, how SMEs' opt for bootstrap financing to speed the operation of firms are discussed. The attributes for speed are:

- Less required taken
- Less pending work
- Fast operation

- **Flexibility**

For the flexibility impact attribute are:

- Work adjustment
- Support system

1.5.2 Independent Variables

Independent variables are expected to affect dependent variables. In this research paper the use of bootstrapping techniques by SMEs are taken as independent variables. The independent variables which signifies the way of bootstrapping are explained below.

- **Delaying Payments**

For this factor, how start-ups can use delaying bootstrapping techniques are explained. The attributes for delaying payments are:

- Delaying payments to suppliers
- Delaying tax payments
- Delaying monthly salary payments to staffs
- Delaying interest payments on loan

- **Minimizing accounts receivable**

For this factor, use of bootstrapping by minimization of accounts receivable are taken into consideration. The attributes for minimizing accounts receivable are:

- Ceasing business with late-paying customers
- Choosing customers who pay quickly
- Obtaining advance customer payments
- Offering same condition to all customers
- Speeding-up invoicing

- **Private-owner financing**

For this factor, use of bootstrapping by utilizing private owner financing are taken into consideration. The attributes for private-owner financing are:

- Employing relatives/friends at low salary
- Obtaining loan from relatives/friends
- Using personal income from outside employment (other jobs)
- Using personal credit cards for business
- Holding manager/owner salary if necessary

- **Joint resource utilization**

For this factor, use of bootstrapping by sharing resources with other businesses are explained. The attributes for sharing resources with other businesses are:

- Borrowing equipment for certain time period
- Buying on consignment (paying to the suppliers only after goods is sold)

- Coordinating purchases with other business
- Sharing employees with other business
- Sharing equipment with other business
- Sharing office space with other business

1.6 Significance of the Study

This study adds emphasis on the neglected segment of financial access for SMEs. ‘Less is more’ new agenda has helped a lot for SMEs to sustain during the preliminary phase. It has gained insights about how the SMEs take about the bootstrapping method. It has found out the reason why bootstrapping is preferred over other strategies. The implication of the study of bootstrapping, which deserves more attention and is a more general phenomenon, finally points out the need of internally oriented financing strategies than market focused strategies (Winborg & Landstrom, 2000). This research paper has implications for several research literatures and paper works in coming days. As noted by Timmons (1999), bootstrap financing is a way of life in entrepreneurial companies as many new firms may have few alternatives beside this method and are unable or unwilling to raise external finance (Vanacker et al., 2011).

Bootstrappers have better potential to gain legitimacy in the eyes of potential funders (Freear et al., 1995). The relatively low assessment of importance of bootstrapping among Nepalese SMEs suggests that they aren’t aware about the relevance and potential benefits of this method. So, this paper helps create awareness too. The result of this paper provides several insights into uses of this technique and driving factors to use these tools. This research paper is significant to the policy makers, entrepreneurs, academicians, students and other potential stakeholders who consider bootstrapping tools to be one of the prominent sources of financing for new SMEs. This study also helps researchers, scholars and academicians on the level of awareness and acceptance of these financing tools and their input to showcase the importance of these tools among SMEs.

This study helps new SMEs a lot to have optimum utilization of available resources with the use of bootstrap financing. This paper has significant impact on policy making authority and government body to bring the policy and execution plan of promoting new SMEs. One of the fundamental backbones of any economy is the input of the small and medium entrepreneurial sector. So, acknowledgement from the government makes it credible too. This paper helps get the attention of colleges and

universities to provide it a clear and concise importance to include in academic material. When the students are taught in their formal or informal academic institution, the tendency to abide by the benefit of bootstrapping is higher.

1.7 Limitations of the Study

It would be quite an exception if any research paper with no limitation is carried out. This research paper also has limitations and they are mentioned below:

- The number of respondents is 386 but this sample size can't be enough to generalize the theory in the context of Nepal.
- This research is solely based on a quantitative method so doesn't consider the qualitative factor of bootstrap financing method.
- The study is based on particularly one point of time so it doesn't cover longitudinal impact.
- The sample has been taken mostly from Kathmandu valley so it doesn't have a diverse representation of Nepal as a whole.
- This study considers only a limited number of independent variables as the tools of bootstrap financing.

1.8 Structure of the Body

The present study comprises three main sections with five chapters.

- Preliminary section
- Body of the report
- Supplementary section

The preliminary section consists of; title page, certification, and declaration of authenticity, acknowledgement, and list of contents, list of tables, list of figures, abbreviations and executive summary. Similarly, the body of the report consists of another five sections; introduction, literature review and theoretical framework research methodology, analysis and results. This is followed by discussions, conclusions and the implications. The final section of the report contains bibliography and appendix.

The first chapter encompasses the introduction of the study that explains the theoretical background of bootstrap financing. It further includes statements of research problems, purpose of the study, research objectives, rationale of research report, significance of the study, limitations of the study and structure of this GRP. Similarly, the second compromises literature review and theoretical framework. Literature review consists of review of empirical studies, research articles and thesis or dissertation and

also presents the overall scenario of the bootstrap and operational effectiveness. It helps to figure out findings of previous research and relate to the current study. A theoretical framework is for identifying the dependent and independent variables based on previous literatures. In the same way, the third chapter is the research methodology that explains the tools and techniques used in the study. This chapter deals with research design, sample size and population, source of data, data collection techniques and data analysis. It also deals with reliability of research tools and techniques and ethical consideration of the study. The fourth chapter describes analysis and results of the study. It represents analysis of quantitative data using statistical tools that define the various tables, figures intended to answer the objectives and research questions of the research. Finally, the last chapter deals with discussion, conclusion and implications of the study.

CHAPTER II

REVIEW OF LITERATURE AND CONCEPTUAL FRAMEWORK

2.1 Literature Review of Bootstrap Financing

Auken and Neeley (1996) examined the utilization of bootstrap financing in Mid-western state of the USA with the sample of seventy-eight firms which used bootstrap financing. The aim of the paper was to look at the relationships between the utilization of bootstrap financing and independent variables i.e. (1) ownership structure, (2) community size, and (3) sort of firm. Overall, the study focuses on the relationship between the utilization of bootstrap financing by small start-up firms and their specific characteristics. On their findings, owners of sole proprietorships are likely to depend more on bootstrap financing. The ability of the new firm to accumulate initial capital is directly suffering from ownership structure i.e., partnerships, corporations, sole proprietorship, indebtedness corporations. The ownership structure consisting of quiet one owner features a tendency to use an external source of financing as they need more people in touch the value. The dimensions of the community were segmented to the population with more than 10,001 people and less than 10,000 people. Their result implied the utilization of bootstrap sources by owners in smaller communities than in larger communities. Their independent variables included sort of firm i.e. retail, services, construction, manufacturing, and wholesale. This supported their findings, a smaller percentage of construction and manufacturing firms use bootstrap financing as they need huge assets and collateral to urge the external financing and a better percentage of non-construction and manufacturing firms use this method. Other firms comprised around 30 percent of start-up capital whereas manufacturing firms comprised more than 60 percent. Their study supported that bootstrap financing is significantly suffering from the characteristics of the firm and ownership of the firm whereas location of the firm relative to community size doesn't appear as a significant factor.

Winborg and Landstrom (2000) identified the six different clusters of bootstrap financing methods by unstructured interview with small business managers, accountants, consultants, bank officials and researchers. Those clusters are: 1) delaying bootstrappers; 2) relationship-oriented bootstrappers; 3) subsidy-oriented bootstrappers; 4) minimizing bootstrappers; 5) non-bootstrappers and 6) private owner-

financed bootstrappers. Their study showed that the groups of financial bootstrappers show difference in their orientation. Supported their findings, delaying bootstrappers, private owner-financed bootstrappers, and minimizing bootstrappers all signified internal mode of bootstrapping for resource acquisition. On the opposite hand, relationship-oriented bootstrappers represented socially oriented mode of resource acquisition and subsidy-oriented bootstrappers followed quasi market-oriented resource acquisition. Their research paper aimed to seek out the business managers' use of bootstrapping methods and generate concepts which will help better understand their bootstrapping behaviors. The test was to spot the difference between the six clusters with regard to the independent variables i.e., size, line of business, stage of development etc. Their findings about the utilization of bootstrapping consisted; 1) 78 percent bought used equipment rather than new, 2) 74 percent sought out absolute best condition with suppliers, 3) 45 percent withheld manager's salary, 4) 44 percent delayed payments to suppliers, 5) 44 percent used routines for speeding up invoicing and 6) 42 percent borrowed equipment from other businesses.

Auken (2005) compared the owners' assessment of the importance of 28 bootstrap financing among technology-based and non-technology-based firms located in Midwestern states. In his study, the bootstrap financing methods were extracted from Winborg and Landstrom (2000). In support of his findings, technology-based firms commonly depend upon "risk investors," like venture capital and angel investors for business financing. He has concluded in his research paper that, three of the five bootstrap financing methods ranked highest within the importance in use between both categories of firms. Those three methods included, negotiating best terms with suppliers, offering same terms to all or any customers and speeding invoicing up. The smallest amount important categories mentioned by both firms were, delay tax payments and acquire loans from friends/relatives. From his respondents, owners of tech companies ranked 6 of 28 bootstrap financing methods as significantly more important than owners of non-tech firms i.e., 1) cease business with late payers; 2) hire temporary personnel; 3) use personal credit cards; 4) charge interest on overdue accounts; 5) borrow equipment and 6) share office space. He argued that tech companies have a tendency to rank bootstrapping methods higher if it improves the cash flow. Lastly, his research has reflected that owners of non-tech firms ranked delaying payments as more important as compared to tech firms. On the other hand,

owner of tech firm ranked minimizing assets as more important.

Lahm and Little (2005) examined and discussed the four methods of bootstrapping in their research article. Those four methods included; bootstrapping product development, bootstrapping business development, bootstrapping to minimize the need for (outside) capital financing and bootstrapping to minimize the need for capital which was introduced by Freear et al. (1995). For these techniques broadly, they have provided two headings which are the acquisition and control of resources (both tangible and intangible) and efficient uses of those resources to finance the enterprise for growth. Based on their research to gain the acquisition and control over resources, they raise cash through leveraging financial resourcefulness i.e. by using credit cards, home equity loans and so forth, they share office space and do things with clever bartering. And bootstrappers find ways to reduce risk and minimize expenses by buying cheaper goods, spending wisely and purchasing with scalability and longevity in mind.

Gendron (1999) wrote an article about the annals of bootstrapping and has reported the overwhelming majority of small businesses and entrepreneurial firms finance through personal savings, credit-card debt, loans from friends and family and more formal sources of private equity. According to him, as sexy as the venture world seems, it was evident that more than 37 percent of the 1998 Inc. 500 started with less than or equal to \$10,000. He insisted on bootstrapping the transformation of human capital into financial capital and sweat equity onto bankable equity. He wrote, though many companies don't stay bootstrappers for long as they get lucky for being chosen by investors, they survive many years on a steady diet of peanut-butter-and-jelly sandwiches and not much more. As per his findings, though in the expansionary phase many businesses take alternatives of bank financing, venture capitalist, angel investors etc., their introductory and growth phase undergo some way of bootstrapping in one way or another. Some companies even continue bootstrapping for many years of their operation, in fact some keep on staying in the market depending solely on this financing method.

Carpenter and Petersen (2002) delineated the long-standing theory that the growth of start-ups is constrained by the quantity of internal finance. With assumptions taken into consideration, when financing constraints are binding, internal finance should make more than growth in assets. According to their research, it was possible that firms might get short-run fluctuations in cash flow with cash and equivalents,

which leads to a positive relationship between changes in assets and cash flow. They have suggested that the growth of most small firms is restricted by internal finance. Small fraction of start-ups that make huge use of new share issues, greater growth rate. Some of their results suggest, growth rates can be approximately independent of the size and variance of growth rate can decline with size. Their evidence supported the continued development of models of strategic behavior incorporating the role of internal finance as a constraint on firm activity.

Lahm and Little (2005) reflected the status of bootstrapping methods in entrepreneurship literature, textbooks, and teaching practices versus current business practices. As per their discovery, research on bootstrapping is very limited in spite of the pervasive use of this method by entrepreneurs. In their paper they mentioned that academic textbooks used in university and college courses scarcely bring in-depth coverage of this financing phenomena. Only one or two paragraphs are dedicated to a higher extent. Contrary to this, bootstrapping is advocated and documented by various business press and journals to some extent. As there is very little research and no remarkable introduction in college and university courses, bootstrapping has not gotten as much attention as it deserves. Based on their findings, 1) there is lack of scholarship pertaining to bootstrapping, 2) textbook authors often do draw upon the existing literature, 3) popular textbooks have lacked the coverage of bootstrapping, 4) students' views and understanding in a given course should be informed in an in-depth and realistic view.

Ebben and Johnson (2006) presented a paper of empirical study regarding bootstrapping and organizational development for small firms. Their study presented the result regarding the use of different types of bootstrapping at different periods in the life of a small firm. They tried to link bootstrapping to organizational theory and firm development. For their research they took the four bootstrapping techniques; customer-related, delaying-payment, owner-related and joint-utilization techniques out of six categories of bootstrapping developed by Winborg and Landstrom (2000). Their empirical analysis involved sixty-two small retail and eighty-four small service firms situated in the Midwestern United States. Their study focused on getting the answer to the level of use of bootstrapping by respective firms during their early in life of the firm and current use. As per their study they found, owner-related, joint-utilization and

delaying-payments techniques significantly decreased over time and customer-related bootstrapping techniques significantly increased.

Winborg (2009) highlighted the motives for the use of financial bootstrapping in new businesses. In his study he first identified and labeled the groups of new business founders regarding their motives for the use of bootstrapping method, secondly, he examined the relation between variables referring to the founder and business and the motives and thirdly labeled as cost-reducing bootstrappers, capital-constrained bootstrappers and risk-reducing bootstrappers. He disclosed the result that the most important motive being 'lower costs (chosen by 89 percent)', followed by 'lack of capital (chosen by 50 percent)' and least important motive being 'fun helping others and getting help from others (chosen by 46 percent)'. Moreover, 'saving time', 'managing without external finance' and 'reducing risk' followed respectively whereas 'freedom of action' was chosen by very few respondents. In his study, the experience of the founder played a significant role in the influence of bootstrapping. Interestingly, the resource acquisition behavior changed from initially focusing on reducing costs to reducing risks proactively. With relation to the experience of the founders, cost-reducing bootstrappers had little experience of less than six months and risk-reducing bootstrappers had more experience of almost three years. Capital-constrained bootstrappers experience of two years. Among his respondents, nine out of ten new business founders used bootstrapping at some point in time and mentioned three different motives for it on average.

Lam (2010) narrated "funding gap" by exploring how and why informal entrepreneurial finance is made available through longitudinal fieldwork. His paper showed that entrepreneurs are actively managing demand and supply of finance to narrow the "funding gap". He explained the 'funding gap' as a gap created by huge demand for finance and limited supply of it. For his research he adopted topic-oriented unstructured interviewing and observation. His results supported the literature that bootstrapping financing is more important than debt finance and equity finance. He concluded that the task of nascent entrepreneurs is to enhance their access to supply of finance to fulfill the funding gap. He insisted on a start-ups approach to fill the funding gap by creating the required start-up capital, either by actively saving up their income, having a part-time job and/or having a spouse in the employment to meet the financial needs of the new firm. In his view, managing the 'funding gap' depends on social,

cultural, political and economic factors. Political and economic factors are essential to know how entrepreneurs manage finance, social and cultural factors are essential to know the understanding towards entrepreneurship, and to know why entrepreneurial finance is demanded, supplied and created.

Yilmazar and Schrank (2010) in their research article integrated relevant literature regarding interchange of financial resources between family and business. Based on their research, financial bootstrapping literature doesn't address the influence of household characteristics on the owner's resources in a firm. Their study mainly focused on knowing the intermingling of resources by exchanging to benefit either the business or the family. Many past researches have provided the evidence of direct transfer of cash in the form of loans from household to business, support of business with credit card, household property as collateral, withhold of owner/manager salary etc. They claimed that intermingling research had addressed the flow of owner's resources to business and business resources to households. In their research they have explained various predictors of the use of owner resources and intermingling. The predictor is Small Business vs. Family Business. In accordance with their findings, there are no significant differences between small business and family business for intermingling resources. As per them, among business characteristics; firms with lesser number of employees use fewer bootstrapping techniques which in contrast to finding of Winborg and Landstrom (2000). Firms at later stages of the start-up phase also involve intermingling. Businesses in the early stage were more likely to use bootstrapping and with the age of the firm, intermingling has a decreasing tendency too.

Assibey et al. (2011) investigated the determinants of financing preference of micro and small enterprises. Based on their study, most nascent entrepreneurs preferred low cost and less risky sources of financing which are internal and are also considered bootstrap financing. When the firm matured, they preferred a higher category of formal financing. Besides this, ownership structure, enterprise size etc. are also considered determining factors for their choice of financing option. In their study on entrepreneurs of Ghana, 9.1 percent start-ups had been using bootstrap financing, 67.0 percent of them were using self-financing tools. Their result showed that the interest sensitivity and negative perception of the use of credit variables were significant with negative signs for future financing preference. Their analysis revealed that at the start-up phase, micro

entrepreneurs strongly preferred the use of personal, bootstrap and informal sources of finance. However, as the enterprise matured and established, they had a tendency to seek financing sources like bank loans, seed funding, angel investors, equity financing etc.

Salimath and Jones III (2011) demonstrated the link between Bricolage, Bootstrapping, and the Quest for Efficiencies by extrapolating the application of the principle of scientific management in entrepreneurial firms and small businesses. They argued Taylor's efficiency perspective has relevance to the bricolage and bootstrapping resource management techniques used by entrepreneurs. Scientific management is managing and ensuring non-wasteful usage of human, material, time, technological and capital resources (Taylor, 1911). In their research paper they have viewed scientific management as a subset of the firm level resource management approaches that are available to the firms. Their paper is focused on uncovering similarities in objectives between entrepreneurship and scientific management's paradigm for efficiency. They presented bricolage i.e. improvisation and bootstrapping i.e. operating effectively without financial/external help as specific examples of entrepreneurial behavior that reflects Taylor's principles of scientific management.

Gartner et al. (2012) illustrated the way to finance the emerging firm of nascent entrepreneurs by the choice between personal and external funding choices. They demonstrated the relationship between independent variables such as firm characteristics, entrepreneur characteristics for the attitude of financing the firm. Based on their paper, most entrepreneurs (83.8 percent) used personal funds for their start-up financial needs and about 31.8 percent of respondents used external sources. Their result showed expected firm size was positively related to the use of higher amounts of personal and external financing. Another conclusion was that incorporated nascent ventures used higher amounts of personal and external financing whereas incorporated nascent ventures were less likely to choose personal sources in comparison to non-incorporated ventures. However, there was no support to the statement that growth intentions of the nascent entrepreneur were negatively related to the use of external financing and finding for personal sources weren't significant. Their conclusion also included that type of industry, whether asset-intensive or service-oriented, was not significant for either choice of financing. The use of external financing was not

significant to the financial projections of the firm. Lastly, their findings suggest legally registered nascent ventures acquired more external financing.

Malmstrom (2014) explained the financing behavior in small ventures. His study demonstrated a multifaceted image of bootstrap financing used in small firms. He has used three bootstrap financing strategies; first 'quick-fix bootstrappers', which emphasized temporary access to resources and used internally oriented activities for such purposes; second 'proactive bootstrappers', which focused on operational resource issues; third 'efficient bootstrappers', which showed activities that are externally and vertically oriented. Three out of ten ventures used quick-fix bootstrapping. Quick-fix bootstrappers had a tendency to sacrifice immediate personal financial returns and make investments in facilitating development and growth of the firm. They were motivated by remaining in control and sustaining freedom of action. Four of ten ventures used proactive bootstrapping. They tackled their resources with socially oriented bootstrapping to reduce capital necessity. The entrepreneurs who take proactive bootstrapping were faithful to long-term relationships. Proactive bootstrappers relied on friendship and social ties to reduce their capital need. They took governmental subsidies as a significant part of their resourcing. In contrast to them, quick-fix bootstrappers found government subsidies more time consuming and considered troublesome to keep updated as rules and regulations kept on changing. Finally, efficient bootstrappers are those who engage in improving cash flow through externally oriented activities. Three out of ten ventures were dominated by the efficient bootstrapper category. They used delaying activities as resourcing techniques in contrast to proactive bootstrappers who preferred long term relationships. They are among high negotiators. They also had a tendency to rationalize exploitation of the value chain in the best possible way. This way, as per the researcher, the taxonomy consists of three strategies which are quick-fix, proactive and efficient bootstrappers.

Bhushal (2015) explained the use of bootstrap financing in three Nepalese SME companies: Sumi Traders Limited, Kavya Boutique 'Soul of Fashion' and Life Guard Hospital Pvt. Ltd. He has analyzed the level of using bootstrap financing by those firms on their various life stages i.e., existence, survival, success, take-off and resource maturity. Based on his study, on the different stages of the life cycle of a company, they used different strategies. In the existence level, they tend to use personal savings more. Sumi Traders Limited also took loans from private money lenders, and loans from

friends during the existence stage. In the survival stage, use of Retained earnings, short-term loan, trade credit etc. are used. For some companies bootstrapping technique in the success stage isn't taken into consideration as there is no availability of evidence of use of bootstrap financing. As per his study, all respondents had at some point of the business cycle used bootstrapping. Their underlying reason to choose bootstrap financing was due to lack of capital, motive of lowering cost, lack of manpower etc.

2.2 Review of Operational Effectiveness

Ricardo et. al (2009) have stated that organizations are increasingly investing in enterprise information systems with the aim of improving operation of the business and to gain competitive advantage in the market. Based on the study qualitative and quantitative three stage methodological approach: quality of information from technology innovation effectiveness, quality and speed from operational effectiveness are necessary alignment between innovation and operational effectiveness. This study has found four factors that explain the alignment between technology innovation effectiveness and operational effectiveness. The four factors include quality, speed, quality information and quality of service. Similarly, the respondents from two organizations identified linkages between the quality of information and quality of service stemming from technology innovation and five factors from innovation effectiveness (cost, quality, flexibility, speed and reliability). However, the lack of understanding in implementation of five performance objectives in the process of implementation of enterprise information systems is creating a gap between alignment of technology and operational effectiveness.

T. Sueyoshi & M. Goto (2010) has investigated the linkages among environmental, operational and financial performance manufacturing industries of Japan which were listed in Tokyo Stock Exchange. The study has found that larger firms had caliber to improve their operational and environmental performance. All the manufacturing firms had prioritized operational performance improvement rather than environmental performance improvement. This study also found three business implications related to corporate strategy. Firstly, large manufacturing firms had capital and technology to improve their operational performance. However, there was no linkage of capital and technology in small and medium manufacturing firms. Secondly, Japanese manufacturing firms have given more emphasis on operational efficiency than

environmental efficiency. Third, operational efficiency has led the financial performance in the positive direction of Japanese manufacturing firms.

Dunggan (2011) explained that operational effectiveness is a state of operational activity where a high degree of execution and the association has arrived in the most noteworthy way. He also stated that operational effectiveness isn't just about activity execution like expense, time, quality, and adaptability measurements yet in addition about how the activity side of the business upholds the business development. Likewise, it doesn't simply just incorporate expense decrease and quality improvement yet additionally need to deal with individuals and assets.

Operational excellence is a balanced management of quality, cost and time and at the same time focusing on the customer requirement. Operational excellence emphasizes on performance and organizations practices that the way organizations to achieve superior performance and continuous improvement. It is a continuing improvement in all dimensions of the production plant and measured by the performance efficiency and effectiveness. To achieve operational excellence, top management must play a role to engage the operational excellence structure and culture to their employees (Friedli, Basu, Bellm, & Werani, 2013). Miller (2014) explained that operational excellence is the continuous pursuit of better performance and effectiveness in all dimensions of the organizational activities. Operational excellence is concerned about production process, consistency and reducing waste by creating value through managing the performance of employees, customers and supply chain. Hence, operational excellence can achieve superior performance and profits by using a systematic approach which is focusing on people and implementing the changes by involving customers, constantly innovating, operating continuous improvement and moving at optimal speed.

Russell & Koch (2009) stated that operational effectiveness can be achieved by reaching the height of operational efficiency through doing things better, faster, and cheaper. Traditionally, operational effectiveness means optimizing business processes, production and manufacturing that aim to satisfy customer demand, improve quality and increase productivity and efficiency. Today, operational excellence means much wider and it's a key lever for improving profitability and competitive advantage. It's not just about managing day to day operations with efficiency but it is a way to foster continuous improvement (Russell & Koch, 2009; Yew & Ahmad, 2014). Cesarotti

&Spada (2009) posited that operational effectiveness is a comprehensive approach to achieve world class performance in productivity, quality and delivery of products and services. The systematic approach of operational excellence enables organizations to achieve a continuous improvement culture, service excellence and customer orientation and at the same time achieve customer satisfaction and operational efficiency.

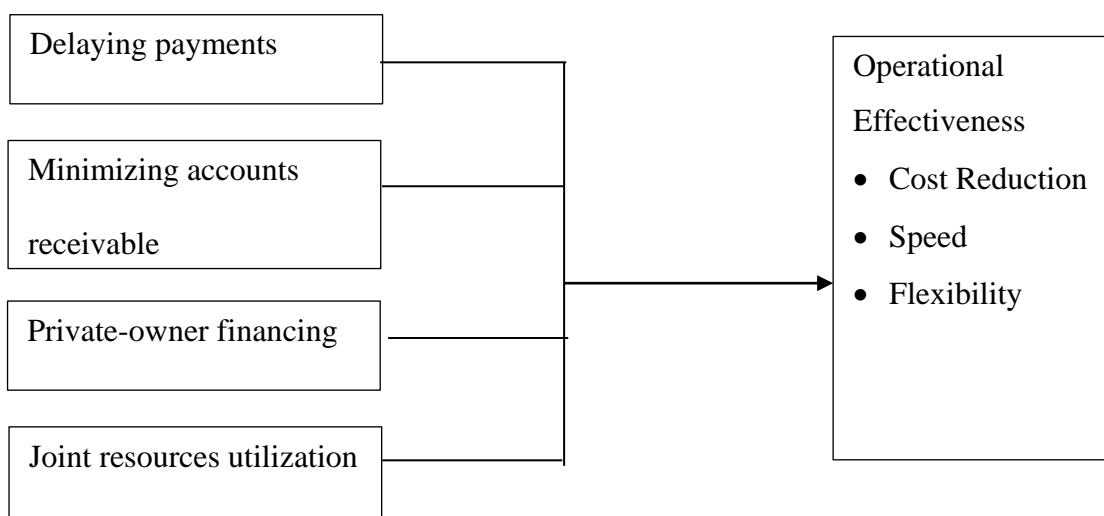
2.3 Conceptual framework

The conceptual framework is the foundation for any dissertation. It stays within the framework of the theory that the entire study proceeds. The preliminary study of literature and information builds a solid foundation for developing a theoretical/conceptual framework. Carefully structured theoretical/conceptual framework leads to appropriate formation of study plan, data collection methodology and data analysis plan. In other words, conceptual framework is a basic conceptual structure organized around a theory. It defines the variables that are going to be used in the research paper. Conceptual frameworks can act like a map that provides direction to empirical inquiry.

This study has taken tools of bootstrap financing as independent variables and operational effectiveness as dependent variable. Under independent variables various tools such as, delaying payments, minimizing accounts receivable, private-owner financing, and joint resources utilization are taken for this study. Under dependent variable, operational effectiveness such as, cost reduction, speed and flexibility is taken for this research paper.

Independent Variables

Dependent Variables



Source: Independent variables were derived from Winborg and Landstrom (2001)

Figure 1: Conceptual Framework.

CHAPTER III

RESEARCH METHODS

Research methodology refers to various methods of practices applied in the entire aspect of the study. It helps to solve the research problem in a systematic way and set out the overall plan associated with the study. This research provides a basic framework to achieve the objective of the research paper as mentioned in chapter one. This chapter also explains the methodology that has been employed in the study. This chapter presents the context of the study. It provides the background against which the findings of the study have been assessed. Thus, this chapter provides a description of the research plan and design, nature, and source of data, a method of analysis and models for the study.

3.1 Research Design

The research design has been associated with research questions that intend to test the relation and impact of bootstrap financing, that is, Delaying payments, Minimizing accounts receivable, Private owner financing and Joint resources utilization on Operational Effectiveness of Nepalese SMEs. A quantitative and cross-sectional research design has been used in which descriptive research was used to describe the variables of bootstrap financing.

Similarly, causal research has been used to test the relationship between bootstrap techniques and construct of the operational effectiveness. It provides useful insights to readers regarding the use of bootstrap to make operation more effective and also provides the equation that expresses dependent variables by preserving the impact of combination of independent variables.

3.2 Population and Sample

Kathmandu valley is the prime location of this study. The population consists of participation of both male and female aged above 18 years who have been working as manager and operation head in small and medium enterprises. The participants were chosen randomly and as per the convenience. The participants were asked to fill the questionnaire. This study consists of 386 participants (sample) which has been identified by the metrics developed by Godden in 2004.

3.3 Instrumentation

The questionnaire contains four constructs of the bootstrap financing originally developed by Winborg and Landstrom(2001) which are Delaying payments, Minimizing accounts receivable, Private owner financing and Joint resources utilization where Delaying payments had four items, minimizing accounts receivable had five items, Private owner financing had five items and joint resources utilization had six items that helped in measurement of bootstrap financing value. Similarly, the constructs of operational effectiveness are Cost reduction, Speed and Flexibility which has altogether nine items which were originally developed by R. Santa et al (2014).

3.4 Data Analysis

Descriptive, correlation and regression analysis has been used in this study. The descriptive research such as mean, standard deviation, minimum and maximum values of variables are used to describe the bootstrap financing tools used by SMEs. Correlation analysis is used to identify direction and magnitude between two sets of variables. Along this regression analysis is used to find out the influence of independent variables over dependent variables. The reliability and validity has been tested and the values of Cronbach alpha have been recorded and minimum to 0.6 levels for each variable is considered reliable for this research paper.

3.5 Reliability of Data

Reliability and validity are determining factors to find the truthfulness of findings of research. Validity refers to the accuracy of a measure and a measurement. Reliability, refers to the credibility of the test, and it mainly tests measurement results and measurement tools. Reliability is the extent to which results are consistent overtime and an accurate representation of population. The values of Cronbach alpha have been recorded and minimum to 0.7 levels for each variable is considered reliable for this research paper.

Cronbach's alpha is a statistical tool used to measure the internal consistency or reliability. Cronbach's alpha has been used in this study too to test the validity and reliability of the primary data for determining internal consistency among various independent variables of Delaying Payments (0.739), Minimizing Accounts Receivable (0.703), Private Owner Financing (0.719) and Sharing Resources (0.863). Additionally, consistency among various dependent variables of Cost Reduction (0.733), Capital Control (0.746) and Risk Reduction (0.756) are also tested.

Table 1: *Coefficient of Cronbach's Alpha*

Variables	Cronbach's Alpha	Remarks
Delaying Payments	0.739	Acceptable
Minimizing Accounts Receivable	0.703	Acceptable
Private Owner Financing	0.719	Acceptable
Joint Resources Utilization	0.863	Acceptable
Cost Reduction	0.733	Acceptable
Speed	0.746	Acceptable
Flexibility	0.756	Acceptable

CHAPTER IV

RESULTS AND ANALYSIS

This chapter incorporates the analysis and interpretation of the collected data. The data collected from questionnaire distribution are presented, analyzed and interpreted for attaining the stated objectives of the study according to the research questions formulated for this study. The analysis of the research is based in the primary data collection. The questionnaires were distributed to respondents of age group, gender, educational status, and experience of work to people involved in SMEs. The first section explains the analysis of primary data and presents the descriptive results of the questionnaire. The second section explains the analysis of the regression model and correlation. The third section of this chapter deals with concluding remarks of the findings. With the help of SPSS software, the respondents' profile and result of the survey is presented in the following sections. The percentage, frequency, mean, standard deviation etc. is calculated to describe the data.

4.1 Respondents' Profile

The respondent's profile reveals the personal characteristics of respondents on the basis of various characteristics such as gender, age group, academic qualification, work experience and firm age. The demographic characteristics of start-ups using bootstrap financing tools are tabulated below.

Table 2: *Distribution by Gender*

	Frequency	Percent
Male	247	64.0
Female	139	36.0
Total	386	100.0

Table 2 shows the distribution of respondents according to gender. In this study, the majority of respondents are male of 247 followed by female respondents of 139 which are 64 percent and 36 percent respectively.

Table 3: *Distribution by Age Group*

	Frequency	Percent
18-25	103	26.7
25-40	138	35.8
40 and Above	145	37.6
Total	386	100.0

Table 2 shows the distribution of respondents according to the age group. The slight majority of respondents are of age group 40 and above years and least respondents are of age group 18 to 25 years. The distribution of 18 to 25 years, 25 to 40 years and age groups of 40 years and above are 26.7 percent, 35.8 percent and 37.6 percent respectively.

Table 4: *Distribution by academic qualification*

	Frequency	Percent
+2 or below	64	16.6
Bachelors	165	42.7
Masters and above	157	40.7
Total	386	100.0

Table 4 shows the distribution of respondents according to their academic qualification. The majority of respondents have bachelor's degree followed by academic qualification of master's degree and +2 or below. The distribution of +2 or below of 64, bachelor's degree of 165 and masters and above degree of 157 respondents are 16.6 percent, 42.2 percent and 40.7 percent respectively.

Table 5: *Distribution by Work Experience*

	Frequency	Percent
0-1 Years	68	17.6
1-3 Years	157	40.7
3 years and above	161	41.7
Total	386	100.0

Table 5 shows the distribution of respondents according to their work experience. The frequency of work experience of 0 to 1 year, 1 to 3 years and 3 years and above are 68, 157 and 161 with a percentage of 17.6 percent, 40.7 percent and 41.7 percent respectively.

Table 6: *Distribution by Firm Age*

	Frequency	Percent
0-1 Year	79	20.5
1-3 Years	139	36.0
3 Years and above	168	43.5
Total	386	100.0

Table 6 shows the distribution of respondents according to their firm's age. Majority of respondents have a firm age of 3 years and above with least respondents having 0 to 1 years firm age. The frequency of work experience of 0 to 1 year, 1 to 3 years and 3 years and above are 79, 139 and 168 with a percentage of 20.5 percent, 36 percent and 43.5 percent respectively.

Table 7: *Distribution of Delaying Payments tool*

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
Delay tax payments.	386	1	5	2.19	1.169
Delay salary	386	1	5	2.75	1.263
Delay interest payments on loan.	386	1	5	3.05	1.326
Average Delaying Payment			5	2.7	1.3

Table 7 shows the responses regarding the use of one of the bootstrapping tools i.e. delaying payments tool. Respondents have rated the statements from 1 to 5 i.e. from strongly disagree to strongly agree. (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

The respondents have shown the use of I delay interest payments on loans taken from friends/relatives the most with mean of 3.05 and standard deviation of 1.326. They have used I delay tax payments the least with mean of 2.19 and standard deviation of 1.169. Use of I delay the monthly salary payment of staff has mean of 2.75 and standard deviation of 1.263. However, overall use of delaying payments tool has average of only 2.7 and standard deviation of 1.3. So, SMEs don't seem to use this tool much and are slightly neutral with the use of this tool.

Table 8: *Distribution of Minimizing Accounts Receivable*

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
Cease business	386	1	5	3.28	1.443
Quick payment.	386	1	5	4.24	.970
Advance payments.	386	1	5	3.32	1.314
same conditions	386	1	5	3.89	1.346
speed-up invoicing.	386	1	5	4.37	.828
Average		1	5	3.82	1.18

Table 8 shows the responses regarding the use of one of the bootstrapping tools i.e. minimizing accounts receivable tools. Respondents have rated the statements from 1 to 5 i.e. from strongly disagree to strongly agree. (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

The respondents have shown highest use of speeding-up invoicing with mean of 4.37 and standard deviation of 0.828. They have least used ceasing business with late-paying customers with mean of 3.28 and standard deviation of 1.443. Use of obtaining advance customer payments, offering same conditions to all customers and choosing customers who pay quickly have mean of 3.32, 3.89 and 4.24 respectively which are inclined to moderate agreement. Average use of minimizing accounts receivable tool is 3.82 and standard deviation is 1.18, which shows agreement for the use of minimizing accounts receivable tool.

Table 9: *Distribution of Private Owner Financing*

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
I employ relatives/friends	386	1	5	3.88	1.249
loans from relative/friends.	386	1	5	4.08	1.010
Use personal income	386	1	5	3.90	1.020
Use personal credit cards	386	1	5	3.30	1.255

Hold manager salary	386	1	5	3.16	1.241
Average Private Owner Financing		1	5	3.66	1.15

Table 9 shows the responses regarding the use of one of the bootstrapping tools i.e. private owner financing. Respondents have rated the statements from 1 to 5 i.e. from strongly disagree to strongly agree. (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

The respondents have shown highest agreement with the statement, obtaining loans from relatives/friends with mean of 4.08 and standard deviation of 1.010. They have shown lowest agreement with the statement holding the manager/owner salary among the statements of private owner financing, with mean of 3.16 and standard deviation of 1.241. Use of the statements, using personal credit cards, using personal income from other jobs, employees relatives have mean 3.30, 3.90 and 3.88 respectively which are inclined to agree for the use of these attributes. Average use of private owner financing tools is 3.66 and standard deviation is 1.15, which shows agreement for the use of private owner financing as a bootstrap financing technique.

Table 10: *Distribution of Joint Resources Utilization*

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
Borrowing equipment	386	1	5	3.57	1.267
Buying Consignment	386	1	5	3.61	1.155
Coordinate purchases.	386	1	5	2.96	1.365
Share of employees	386	1	5	2.42	1.250
Sharing of equipment	386	1	5	2.46	1.311
Sharing office space	386	1	5	2.48	1.374
Average		1	5	2.92	1.29

Table 10 shows the responses regarding the use of one of the bootstrapping tools i.e. sharing resources. Respondents have rated the statements from 1 to 5 i.e. from strongly disagree to strongly agree. (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

The respondents have shown highest agreement with the statement, buy on consignment with mean of 3.61 and standard deviation of 1.155. They are inclined to disagree with the statement sharing employees, equipment, and space with other businesses with mean of 2.42, 2.46, 2.48 and standard deviation of 1.250, 1.311, and 1.374. They are slightly neutral with the statements about coordinating purchase with other businesses with mean of 2.96 and standard deviation of 1.365. They have also shown agreement with the statements buying on consignment and borrowing equipment for certain time with the mean of 3.61 and 3.57. Average use of sharing resources tool is almost neutral with mean of 2.92 and standard deviation is 1.29, which shows neutrality for the use of sharing resourcing as a bootstrap financing technique.

Table 11: *Distribution by Cost Reduction*

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
Lower operational cost.	386	1	5	4.03	1.147
Lower the investment cost.	386	1	5	3.74	1.302
Can't bear high costs.	386	1	5	3.80	1.228
Average		1	5	3.86	1.23

Table 11 shows the responses regarding the operational effectiveness of using the bootstrapping tools i.e. cost reduction. Respondents have rated the statements from 1 to 5 i.e. from strongly disagree to strongly agree. (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

The respondents have shown highest agreement with the statement, bootstrapping to lower the operational cost, with mean of 4.03 and standard deviation of 1.147. They have shown lowest agreement with the statement mentioning, to lower the investment cost with mean of 3.47 and standard deviation of 1.302. They have also shown agreement to as my firm is small, it can't bear high costs for now with mean of

3.80 and standard deviation of 1.228, which shows agreement for the cost reduction as impact of using bootstrap financing by SMEs.

Table 12: *Distribution by Speed*

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
Bootstrap for fast operation.	386	1	5	4.09	.811
Minimizes time of operation	386	1	5	3.96	.946
Less work pending	386	1	5	4.11	.857
Average		1	5	4.05	0.87

Table 12 shows the responses regarding the operational effectiveness of using the bootstrapping tools i.e. speed. Respondents have rated the statements from 1 to 5 i.e. from strongly disagree to strongly agree. (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

The respondents have shown highest agreement with the statement for their agreement on less chance of work pending with the mean of 4.11 and standard deviation of 0.857. They have shown agreement with statements of preferring bootstrap for fast operation, to minimize time of operation, and less chance of pending work with mean of 4.09, 3.96, and 4.11. Average impact of bootstrap on operational speed is agreed with the mean of 4.09 and standard deviation of 0.87, which shows agreement for the increased speed as impact of using bootstrap financing.

Table 13: *Distribution by Flexibility*

Particulars	N	Minimum	Maximum	Mean	Std. Deviation
Helps to work anytime	386	1	5	3.69	1.155
Makes work adjustable.	386	1	5	3.78	1.158
Creates a strong support	386	1	5	3.90	1.047
Average		1	5	3.76	1.12

Table 13 shows the responses regarding the operational flexibility using the bootstrapping tools i.e. flexibility. Respondents have rated the statements from 1 to 5

i.e. from strongly disagree to strongly agree. (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

The respondents have shown highest moderate agreement with the statement for bootstrap creating a strong support network with the mean of 3.90 and standard deviation of 1.047. They have shown moderate agreement with statements of prior financing plan makes work adjustable and bootstrapping help to work of their own preference with mean of 3.78, and 3.69. Average impact of bootstrap on operational flexibility is moderately agreed with the mean of 3.76 and standard deviation of 1.12, which shows moderate agreement for the increased flexibility as impact of using bootstrap financing.

4.2 Correlation between Dependent and Independent Variables

Table 14: *Correlation between Independent Variables and Cost reduction*

	DP	MA	PO	JR	CR
DP	1				
MA	0.271	1			
PO	0.273	0.569	1		
JR	0.225	0.318	0.341	1	
CR	0.12	0.293	0.326	0.033	1
	386	386	386	386	386

Table 14 shows the correlation matrix between independent variables and dependent variables, where Delaying Payments, Minimizing Accounts Receivable, Private Owner Financing and Joint Resources Utilization are independent variables, and Cost Reduction, Speed and Flexibility are dependent variables.

From the above table, we can see that Pearson's correlation between Delaying Payments and Cost Reduction is 0.12. This shows that there is a positive relation between delaying payments and cost reduction. The test suggested that this relationship is statistically significant at 5% level of significance with $p\text{-value}=0.019 < 0.05$, $N=386$. This indicates that increased delaying payments help in cost reduction of the SMEs.

Similarly, the Pearson correlation between Minimizing Account Receivable and Cost Reduction is 0.293. This shows that there is a positive relation between minimizing account receivable and cost reduction. The test suggested that this relationship is statistically significant at 5% level of significance with $p\text{-value}=0.000 < 0.05$, $N=386$. This indicates that minimizing account receivables help in cost reduction of the SMEs.

We can also observe that Pearson's correlation between Private Owner Financing and Cost Reduction is 0.326. This shows that there is a positive relation between private owner financing and cost reduction. The test suggested that this relationship is statistically significant at 5% level of significance with p-value=0.000<0.05, N=386. This indicates that private owner financing helps in cost reduction of the SMEs.

Again, Pearson's correlation between Joint Resource Utilization and Cost Reduction is 0.033 which shows very weak positive correlation between joint resource utilization and cost reduction. The test also suggested that this relationship is statistically insignificant at 5% level of significance with p-value=0.515>0.05, N=386. This indicates that joint resource utilization does not help in cost reduction of the SMEs.

Table 15: *Correlation between Independent Variables and Speed*

Correlations					
	DP	MA	PO	JR	Speed
DP	1				
MA	0.271	1			
PO	0.273	0.569	1		
JR	0.225	0.318	0.341	1	
Speed	0.089	0.228	0.19	0.184	1
	386	386	386	386	386

From the table 15, we can see that Pearson's correlation between Delaying Payments and speed is 0.89. This shows that there is a positive relation between delaying payments and speed of the operation. However, the test suggested that this relationship is statistically not significant at 5% level of significance with p-value=0.080<0.05, N=386. This indicates that increased delaying payments does not help to increase the operational speed of the SMEs.

Similarly, the Pearson correlation between Minimizing Account Receivable and speed is 0.228. This shows that there is a positive relation between minimizing account receivable and speed of the operation. The test suggested that this relationship is statistically significant at 5% level of significance with p-value=0.000<0.05, N=386. This indicates that minimizing account receivables help in increased speed of the operation of the SMEs.

We can also observe that Pearson's correlation between Private Owner Financing and speed is 0.190. This shows that there is a positive relation between

private owner financing and speed. The test suggested that this relationship is statistically significant at 5% level of significance with $p\text{-value}=0.000<0.05$, $N=386$. This indicates that private owner financing helps in increased speed of the operation of the SMEs.

Again, Pearson's correlation between Joint Resource Utilization and speed is 0.190 which shows positive correlation between joint resource utilization and speed. The test also suggested that this relationship is statistically significant at 5% level of significance with $p\text{-value}=0.000<0.05$, $N=386$. This indicates that joint resource utilization helps in increased speed of the operation of the SMEs.

Table 16: *Correlation between Independent Variables and Flexibility*

Correlations					
	DP	MA	PO	JR	Flexibility
DP	1				
MA	0.271	1			
PO	0.273	0.569	1		
JR	0.225	0.318	0.341	1	
Flexibility	-0.011	0.144	0.149	0.151	1
	386	386	386	386	386

From the above table 16, we can see that Pearson's correlation between Delaying Payments and flexibility is -0.11. This shows that there is a negative relation between delaying payments and flexibility of the operation. The test suggested that this relationship is statistically not significant at 5% level of significance with $p\text{-value}=0.832>0.05$, $N=386$. This indicates that increased delaying payments does not help to increase the operational flexibility of the SMEs.

Similarly, the Pearson correlation between Minimizing Account Receivable and flexibility is 0.144. This shows that there is a positive relation between minimizing account receivable and flexibility of the operation. The test suggested that this relationship is statistically significant at 5% level of significance with $p\text{-value}=0.004<0.05$, $N=386$. This indicates that minimizing account receivables help in increasing flexibility of the operation of the SMEs.

We can also observe that Pearson's correlation between Private Owner Financing and flexibility is 0.149. This shows that there is a positive relation between private owner financing and speed. The test suggested that this relationship is statistically significant at 5% level of significance with $p\text{-value}=0.003<0.05$, $N=386$.

This indicates that private owner financing helps in increased flexibility of the operation of the SMEs.

Again, Pearson's correlation between Joint Resource Utilization and flexibility is 0.151 which shows positive correlation between joint resource utilization and flexibility. The test also suggested that this relationship is statistically significant at 5% level of significance with $p\text{-value}=0.003<0.05$, $N=386$. This indicates that joint resource utilization helps in increased flexibility of the operation of the SMEs.

Overall, it seems that every independent variable i.e. delaying payments, minimizing accounts receivable, and joint resources utilization are correlated with cost Reduction, speed and flexibility of operational effectiveness. The use of these independent bootstrap financing tools seems to have relevance in Nepalese context as well.

4.3 Regression analysis acceptance of information disclosure

Table 17: *Regression Analysis of Bootstrap Financing Tools on Cost Reduction*

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.036	.169		18.015	.000		
DP	.016	.029	.028	.552	.581	.891	1.122
MA	.136	.046	.176	2.967	.003	.649	1.541
PO	.212	.049	.259	4.335	.000	.638	1.568
JR	-.069	.030	-.117	-2.260	.024	.848	1.180
R Square	0.135						
F	14.892						
P-value	0.000						

On the basis of above findings, following regression have been developed:

$$ID = 3.036 + 0.016X1 + 0.136X2 + 0.212X3 - 0.069X4$$

Where, X1 = Delaying Payments, X2 = Minimizing Accounts Receivable, X3 = Private Owner Financing, X4 = Joint Resources Utilization

Coefficient analysis in Table 15 shows the relationship between cost reduction (dependent variable) and each of the four independent variables. According to significant value, minimizing accounts receivable, private owner financing and joint resources utilization have a significant impact on cost reduction.

Regression coefficient of delaying payments (X1) in the regression coefficient analysis is 0.552 units which indicates that with the increase in use of delaying payments tools, impact for cost reduction also increases with 0.552 units. Regression coefficient of minimizing accounts receivable (X2) in the regression coefficient analysis is 2.967 units which indicates that with the increase in use of minimizing accounts receivable tools, cost reduction increases with 2.967 units. Regression coefficient of private owner financing (X3) in the regression coefficient analysis is 4.335 units which indicates that with the increase in use of private owner financing, cost reduction also increases with 4.335 units. Regression coefficient of joint resources utilization (X4) in the regression coefficient analysis is -2.26 units which indicates that with the increase in use of joint resources utilization tools, cost reduction decreases with -2.26 units. Furthermore, R-square is 13.5 percent which states that the independent variables explain dependent variables by 13.5 percent. It consists of many other factors as well that influence the dependent variable. This regression coefficient explains 13.5 percent of the dependent variable. Also, F value and significance level are 14.892 and 0.000 which states that this regression equation is acceptable.

Thus, Private owner financing is most dominant factor followed by minimizing accounts receivable and delaying payments with the value of Beta 0.212, 0.136 and 0.016 respectively.

Table 18: *Regression Analysis of Bootstrap Financing Tools on Speed*

	Unstandardized		Standardized	T	Sig.	Collinearity Statistics	
	Coefficients		Coefficients			Tolerance	VIF
	B	Std. Error	Beta				
(Constant)	3.011	.213		14.143	.000		

DP	.004	.037	.005	.097	.923	.891	1.122
MA	.146	.058	.155	2.532	.012	.649	1.541
PO	.061	.062	.061	.990	.323	.638	1.568
JR	.081	.038	.113	2.100	.036	.848	1.180
R Square	0.068						
F	6.974						
P-value	0.000						

On the basis of above findings, following regression have been developed:

$$ID = 3.011 + 0.004X1 + 0.146X2 + 0.061X3 + 0.081X4$$

Where, X1 = Delaying Payments, X2 = Minimizing Accounts Receivable, X3 = Private Owner Financing, X4 = Joint Resources Utilization

Coefficient analysis in Table 4.13 shows the relationship between speed (dependent variable) and each of the four independent variables. According to significant value, minimizing accounts receivable, private owner financing and joint resources utilization have a significant impact.

Regression coefficient of delaying payments (X1) in the regression coefficient analysis is 0.097 units which indicates that with the increase in use of delaying payments tools, impact for operational speed also increases with 0.097 units. Regression coefficient of minimizing accounts receivable (X2) in the regression coefficient analysis is 2.532 units which indicates that with the increase in use of minimizing accounts receivable tools, operational speed increases with 2.532 units. Regression coefficient of private owner financing (X3) in the regression coefficient analysis is 0.990 units which indicates that with the increase in use of private owner financing, operational speed also increases with 0.990 units. Regression coefficient of joint resources utilization (X4) in the regression coefficient analysis is .113 units which indicates that with the increase in use of joint resources utilization tools, speed increases with .113 units.

Furthermore, R-square is 6.8 percent which states that the independent variables explain dependent variables by 6.8 percent. It consists of many other factors as well that influence the dependent variable. This regression coefficient explains 6.8 percent of the dependent variable. Also, F value and significance level are 6.974 and 0.000 which states that this regression equation is acceptable.

Thus, minimizing accounts receivable is the most dominant factor to increase speed followed by joint resources utilization, private owner financing and delaying payments with value of Beta 0.146, 0.081, 0.061, and 0.004 respectively.

Table 19: *Regression Analysis of Bootstrap Financing Tools on Flexibility*

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.602	.162		22.200	.000		
DP	-.043	.028	-.082	-1.547	.123	.891	1.122
MA	.057	.044	.081	1.305	.193	.649	1.541
PO	.065	.047	.086	1.376	.170	.638	1.568
JR	.061	.029	.114	2.097	.037	.848	1.180
R Square	0.043						
F	4.25						
P-value	0.002						

On the basis of above findings, following regression have been developed:

$$ID = 3.602 - 0.043X_1 + 0.057X_2 + 0.065X_3 + 0.061X_4$$

Where, X1 = Delaying Payments, X2 = Minimizing Accounts Receivable, X3 = Private Owner Financing, X4 = Joint Resources Utilization

Coefficient analysis in Table 4.13 shows the relationship between flexibility (dependent variable) and each of the four independent variables. According to significant value, minimizing accounts receivable, private owner financing and joint resources utilization have a significant impact on flexibility.

Regression coefficient of delaying payments (X1) in the regression coefficient analysis is -1.547 units which indicates that with the increase in use of delaying payments tools, impact for flexibility also decreases with -1.547 units. Regression coefficient of minimizing accounts receivable (X2) in the regression coefficient analysis is 1.305 units which indicates that with the increase in use of minimizing accounts receivable tools, flexibility increases with 1.305 units. Regression coefficient of private owner financing (X3) in the regression coefficient analysis is 1.376 units

which indicates that with the increase in use of private owner financing, flexibility also increases with 1.376 units. Regression coefficient of joint resources utilization (X4) in the regression coefficient analysis is 2.097 units which indicates that with the increase in use of joint resources utilization tools, flexibility increases with 2.097 units.

Furthermore, R-square is 4.3 percent which states that the independent variables explain dependent variables by 4.3 percent. It consists of many other factors as well that influence the dependent variable. This regression coefficient explains 4.3 percent of the dependent variable. Also, F value and significance level are 0.002 and 0.000 which states that this regression equation is acceptable.

Thus, private owner financing is dominant factor to increase flexibility followed by joint resources utilization, minimizing accounts receivable with Beta value 0.065, 0.061 and 0.057 respectively.

4.4 Summary of Hypothesis

Once data and the impact of independent variables and dependent variables have been analyzed, the final results of hypothesis testing are determined. They are summarized and shown below.

Table 20: *Summary of Results of Hypothesis Testing*

Hypothesis	P-value	Remarks
H01: There is significant impact of delay in payments on cost reduction.	0.581	Rejected
H02: There is significant impact of minimizing accounts receivable on cost reduction.	0.003	Accepted
H03: There is significant impact of private- owner financing on cost reduction.	0.000	Accepted
H04: There is significant impact of joint resources utilization on cost reduction.	0.024	Accepted
H05: There issignificant impact of delaying payments on increased speed.	0.923	Rejected

H ₀ 6: There is significant impact of minimization of accounts receivable on speed.	0.012	Accepted
H ₀ 7: There is significant impact of private-owner financing on increased speed.	0.323	Rejected
H ₀ 8: There is significant impact of joint resource utilization on increased speed.	0.036	Accepted
H ₀ 9: There is significant impact of delaying payments on increased flexibility.	0.123	Rejected
H ₀ 10: There is significant impact of minimizing account receivable on increased flexibility.	0.193	Rejected
H ₀ 11: There is significant impact of private-owner financing on increased flexibility.	0.170	Rejected
H ₀ 12: There is significant impact joint resource utilization on increased flexibility.	0.037	Accepted

4.5 Summary of Major Findings

The main purpose of this research paper is to examine the use of bootstrapping financing tools by Nepalese SMEs and impact of such tools on operational effectiveness. The study evaluated the tools of bootstrap financing such as; delaying payments, minimizing accounts receivable, using private-owner financing and sharing resources with the others and impact of such tools i.e. cost reduction motive, increased speed and increased flexibility of operation.

For this research paper, quantitative analysis has been done on the data collected through primary data collection basis with self-administered questionnaire survey distributed to owners and managers of SMEs. For the sampling, random and convenience sampling methods under non-random sampling have been used. The population for this research paper is SMEs of Nepal. However, the study is mainly concentrated within Kathmandu valley and a total of 386 questionnaires were collected. Both descriptive and analytical analysis is considered to examine the relationship between the dependent and independent variable.

Various tools such as Microsoft Excel and SPSS have been used for arranging and analyzing the data. With the help of the SPSS tool, descriptive statistics, correlation, and regression has been calculated for bringing up the conclusion. Correlation and

regression statistical techniques are used to analyze the result. For coding and arranging the data, Microsoft Excel and SPSS tools are used to tabulate and define the variables. Before analyzing the data, variables and their level are created in variable views. Additionally, statistical tools like frequencies, percentage are also used to describe the respondent profile.

The descriptive analysis has been used to conclude the first objective of exploring the use of bootstrap financing tools by Nepalese SMEs. The analysis shows that SMEs agree to use the bootstrap financing tools such as minimizing accounts receivable and private owner financing. Use of delaying payments and joint resource utilization tools are somewhat used less.

With the help of descriptive analysis itself, a second objective is also achieved which is to estimate the impact of bootstrap financing tools. The analysis shows that the SMEs have the impact on reducing cost, increasing speed and increasing flexibility by using bootstrap financing tools.

Based on the correlation analysis, all independent variables have significant and positive correlation with dependent variables except delaying payments and joint resource utilization. Based on correlation, minimizing account receivable and private ownership have significant and positive correlation with cost reduction, increased speed and increased flexibility. On the other hand, joint resource utilization has significant relation with increased speed and increased flexibility but not with cost reduction.

Based on regression analysis, there is no significant impact of delay in payments on cost reduction, increased speed and increased flexibility however, minimizing account receivable, private owner financing and joint resource utilization have significant impact on cost reduction. Similarly, minimizing account receivable and joint resource utilization have an impact on increased speed. Likewise, only joint resource utilization has a significant impact on increased flexibility.

CHAPTER V

DISCUSSION, CONCLUSIONS AND IMPLICATIONS

5.1 Discussion

The main aim of the study was to evaluate the impact of bootstrap financing on operational effectiveness of Nepalese SMEs. The result indicated that bootstrap financing techniques were significant and predicted operational effectiveness except delaying payment with speed and flexibility, and joint resource utilization with cost reduction. The result showed that cost reduction of operational effectiveness is higher on scale than other variables. This might be because of small and medium firms focusing more on reducing their operational cost to maximize the profit of the business and higher involvement of experienced owners.

Auken and Neeley(1996) examined the utilization of bootstrap financing by creating types of firm and ownership types as independent variables in their study; however, my study is more focused on the impact of bootstrap on the operational part of the small and medium firm. But, the similarity is that in both findings only small firms are using bootstrap financing rather than high capital intensive firms. Winborg and Landstrom(2000) identified six different types of bootstrap financing methods but only four methods have been used in my study. Their research paper aimed to seek out business manager's use of bootstrapping methods to understand bootstrap behaviors, which is the same purpose of this study as to find the managers and owners intention of using bootstrap to make operation more effective.

Ebben and Johnson (2006) found that owner related, joint utilization and delaying payments techniques significantly decreased over the time and customer oriented techniques significantly increased. Similarly, current findings are in line with some previous studies in the field revealing that private owner financing, joint utilization and delaying payments have lower value on scale than minimizing account receivable.

Winborgy(2009) found that the most important motive of using bootstrap financing is to reduce lower cost which seems to agree with current study's emphasis on cost reduction. In both studies the experience of the owners have played a significant role to influence the use of bootstrap financing. Bhusal(2015) found that SME owners tend to use personal savings more in the existence level; in contrast, personal saving is

neglected in this study. However credit and loans from friends and family are highly scored in both studies.

Finally, our results show that the impact of bootstrap financing can be explained from resource based theory of entrepreneurship. We find that bootstrap techniques are positively correlated with operational effectiveness. Our study has given more emphasis on financial capital/liquidity theory and human capital theory of resource based theory of entrepreneurship. Moreover, human capital such as education and experience of managers can be used to identify the opportunity which helps in small and medium enterprise's sustainable growth.

5.2 Conclusion

It can be concluded that from correlation, all the bootstrapping tools have positive correlation with the operational effectiveness of Nepalese SMEs except delaying payments on flexibility. Except joint resource utilization with cost reduction, and delaying payments on flexibility, every bootstrapping tools have significant impact on cost reduction, speed and flexibility. Besides, from the regression, we can conclude that there is significant impact of using bootstrap financing tools for operational effectiveness of Nepalese SMEs. In Nepalese context, these bootstrapping financing tools surely accommodates in reducing cost, increasing speed and flexibility.

5.3 Implications

Based on the findings of the research paper, the following implications are listed:

- The implication of the study of bootstrapping deserves more attention as there is need of internally oriented financing strategies than market focused strategies for small and medium enterprises
- The concept of bootstrap financing needs to get acknowledgement by academicians, researchers, business people and entrepreneurs.
- The relevance and potential benefits of this method are needed to be shown to small and medium enterprises.
- The policy makers and government need to give serious insight to the bootstrap financing tools and how this can promote entrepreneurship. One of fundamental backbone of any economy is the input of the small and medium entrepreneurial sector. So, acknowledgement from the government makes it credible too.

- Small and medium enterprises are better off by taking this strategy seriously, as this technique helps new SMEs a lot to have optimum utilization of available resources.

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ANNEX

Dear respondent,

I, Upakar Lama, a student of MBA at School of Management Tribhuvan University, am conducting this survey for partial fulfillment of Graduate Research Program. This survey is conducted to study bootstrap financing on operational effectiveness of Nepalese SMEs. The information provided by you will be kept confidential and used only for academic purpose. This questionnaire requires just 5-10 minutes to fill up. Your precious time is highly appreciated.

Section A: General Information

Q.1. Please write the appropriate code in the box given below:

(i) Gender <input type="text"/>	(ii) Age Group <input type="text"/>	(iii) Academic Qualification <input type="text"/>
Male 1	18-25 years 1	+2 or below 1
Female 2	25-40 years 2	Bachelors 2
	40 years & above 3	Masters & above 3
(iv) Work Experience <input type="text"/>	(v) Firm Age <input type="text"/>	
0-1 year 1	0-1 year 1	
1-3 year/s 2	1-3 year/s 2	
3 years & above 3	3 years &above 3	

Section B: Independent Variables

Q. 2. Please indicate the level of your use of following bootstrap financing tools and tick accordingly.

1= Strongly Disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly Agree

Statements	1	2	3	4	5
Delaying Payments					
I delay tax payments.					
I delay monthly salary payment of staffs.					
I delay interest payments on loan taken from friends/relatives.					
Minimizing Accounts Receivable					
I cease business with late-paying customers.					
I choose customers who pay quickly.					
I obtain advance customer payments.					
I offer same conditions to all customers.					
I speed-up invoicing.					
Private Owner Financing					
I employ relatives/friends at low salary.					
I obtain loans from relatives/friends.					
I use personal income from outside employment (other jobs).					
I use personal credit cards for business.					
I hold manager/owner salary if necessary.					
Joint Resources Utilization					
I borrow equipment for certain time period.					
I buy on consignment (paying to the suppliers only after goods is sold).					
I coordinate purchases with other business.					
I share employees with other business.					
I share equipment with other business.					
I share office space with other business.					

Section C: Dependent Variables

Q.3 Provide your views regarding impact of bootstrap financing on operational effectiveness of Nepalese SMEs in following statements.

1= Strongly Disagree

2 = Disagree

3= Neutral

4= Agree

5= Strongly Agree

Statements	1	2	3	4	5
Cost Reduction					
I use bootstrapping to lower the operational cost.					
I use bootstrapping to lower the investment cost.					
As my firm is a start-up, it can't bear high cost for now.					
Speed					
I prefer bootstrap financing for fast operation of the firm.					
I think bootstrapping minimizes the time of operation by managing funds.					
There is less chance of work pending if fund is available on time.					
Flexibility					
Bootstrap financing helps to work whenever I want.					
The prior financing plan makes work adjustable.					
I prefer bootstrap financing because it creates strong support network.					