

**DETERMINANTS OF INTERNATIONALIZATION AND  
THEIR RELATIONSHIP WITH PERFORMANCE OF  
SMALL AND MEDIUM ENTERPRISES IN PUNJAB**

A

Thesis

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**By**

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## **DECLARATION**

I declare that the thesis entitled “**Determinants of Internationalization and their relationship with Performance of Small and Medium Enterprise in Punjab**” has been prepared by me under the guidance of Dr. Mridula Mishra, Professor, Mittal School of Business, Lovely Faculty of Business & Arts, Lovely Professional University. No part of this thesis has formed the basis for the award of any degree or fellowship previously.

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## **ABSTRACT**

International entrepreneurship is an emerging area of research in international business and entrepreneurship. From last more than a decade an increase has been witnessed in academic and public policy research studies subjected on Internationalization and Performance of small and medium enterprises. Organizational and environmental characteristics have been focused along with the effects of Internationalization on Performance. Interestingly, majority of the studies have focused on the firms from developed countries. Little is known about determinants of Internationalization process in SMEs from developing and emerging countries. Despite the significant role of SMEs sector in Indian economy, the firm related issues of SMEs remain unexplored and unsolved. The main research challenge in this way is the lack of frameworks.

Present study tries to fill these voids by recording the relationships between organizational and environmental characteristics with internationalization and firm's performance, and the relationship between internationalization and performance in SMEs of Punjab in India. The determining variables taken from organizational and environmental characteristics are Entrepreneurial Orientation, Network Relationships, Global Mindset, Government Support, and Human Capital. This study also makes a difference between firm's financial and non-financial performance, which further adds its significance. The study specifically achieves the objectives: To investigate the effects of entrepreneurial orientation, global mindset, network relationships, human capital and government support on internationalization, to analyze the effect of internationalization on firm performance and to examine the mediating effect of internationalization on the relationships between entrepreneurial orientation, global mindset, network relationships, government support, human capital, and firm Performance.

Large number of studies have established a presumption that measurement of international sales revenue is the only indication of internationalization, present study broadens the construct of internationalization by including scope and speed along with degree as dimensions of internationalization. Construct development of internationalization as a broader and richer than previous ones, and its measurement is one of the major significances for present study.

A study has been carried out to collect primary data from manufacturing SMEs of Punjab, which are involved in international business. Responses have been recorded from two respondents from each firm. One owner and other one the highest-ranking officer dealing with international

business of the firm. Total final complete data has been collected from 412 respondents of 206 SMEs. The data collected has been analyzed using multivariate regression analysis and structural equation modeling.

Present study has found all the five variables as determinants of Internationalization for SMEs in Punjab, however, determining effect of these variables varies significantly. It has been revealed that Human Capital works as a strong determinant of Internationalization in manufacturing SMEs of Punjab, followed by Network Relationships, Government Support, Global Mindset, and then Entrepreneurial Orientation.

The study also examined the relationship of Internationalization with Firm Performance in SMEs of Punjab. The findings of present study credibly demonstrated that Internationalization is positively and significantly related to Firm's Financial and Non-Financial Performance.

Another examination of the study is the relationship of Entrepreneurial Orientation, Network Relationships, Global Mindset, Government Support, and Human Capital with Firm's Financial and Non-Financial Performance in SMEs of Punjab. The findings revealed that Entrepreneurial Orientation has a positive and significant relationship with Financial Performance of SMEs. While analyzing the relationship of Entrepreneurial Orientation with Firm's Non-Financial Performance, the findings also reveal that Entrepreneurial Orientation has a positive and significant relationship with Non-Financial Performance of SMEs.

While examining the relationship of Global Mindset with Firm's Financial Performance, the findings revealed that Global Mindset is negatively related to Financial Performance of SMEs in Punjab. However, the findings also reveal a positive and significant relationship of Global Mindset with Non-Financial Performance of SMEs.

The analysis on relationship of Network Relationships with Financial Performance has revealed that Network Relationships has a positive and significant relationship with Financial Performance of SMEs in Punjab. On examination of relationship between Network Relationships and Firm's Non-Financial Performance, it has been found that Network Relationships also have a positive and significant relationship with Non-Financial Performance of SMEs in Punjab.

On the analysis of relationship between Government Support and Financial Performance, it has been revealed that Government Support has a negative relationship with Financial

Performance in SMEs of Punjab. However, the findings also reveal that Government Support has a positive and significant relationship with Non-Financial Performance of these SMEs.

Similarly, while analyzing the relationship of Human Capital with Financial Performance, the findings reveal that Human Capital has a positive and significant relationship with Financial Performance of SMEs in Punjab. However, Human Capital has a negative relationship with Non-Financial Performance of these firms.

At the last study examined the mediating effect of Internationalization on the relationships between these determinants and the firm performance of SMEs in Punjab. Here Firm Performance again has been taken in terms of Financial and Non-Financial Performance. The findings revealed that Internationalization partially mediates the relationship between Entrepreneurial Orientation and Financial Performance, Global Mindset and Financial Performance, Network Relationships and Financial Performance, Network Relationships and Non-Financial Performance, Government Support and Financial Performance, Government Support and Non-Financial Performance, Human Capital and Non-Financial Performance. However, present study further revealed that Internationalization has no mediating effect between relationships of Entrepreneurial Orientation and Non-Financial Performance, Global Mindset and Non-Financial Performance, Human Capital and Financial Performance. Interestingly, except Human Capital, Internationalization partially mediates the relationship between all these determinants and Financial Performance, and in case of Global Mindset and Network Relationships Internationalization mediates the relationship with both Financial and Non-Financial Performance.

The present research study explores main industries of manufacturing sector in Punjab, in an emerging economy India, with intentions of validating theories based on mature economic contexts, in emerging economies. Exploration of varied industrial contexts helps scholars of entrepreneurship and international business in enhancing the understanding of relationships of firm level variables with patterns of Internationalization in SMEs.

At the end the study has given implications in three categories: theoretical, managerial and policy, and methodological. In addition, limitations of the study have been highlighted along with future research suggestions for further studies.

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## LIST OF ABBREVIATIONS

| S.NO. | DESCRIPTION                        | ABBREVIATION |
|-------|------------------------------------|--------------|
| 1     | Micro Small and Medium Enterprises | MSMEs        |
| 2     | Multinational Enterprises          | MNEs         |
| 3     | Gross Domestic Produce             | GDP          |
| 4     | Entrepreneurial Orientation        | EO           |
| 5     | Human Capital                      | HC           |
| 6     | Network Relationships              | NR           |
| 7     | Global Mindset                     | GM           |
| 8     | Government Support                 | GS           |
| 9     | Financial Performance              | FP           |
| 10    | Non-Financial Performance          | NFP          |
| 11    | Foreign Direct Investment          | FDI          |
| 12    | Resource Based View                | RBV          |
| 13    | Return on Assets                   | ROA          |
| 14    | Return on Sales                    | ROS          |
| 15    | Return on Investment               | ROI          |
| 16    | Return on Equity                   | ROE          |
| 17    | National Industrial Classification | NIC          |
| 18    | Goodness of Fit Index              | GFI          |
| 19    | Adjusted Goodness of Fit Index     | AGFI         |
| 20    | Comparative Fit Index              | CFI          |
| 21    | Normed Fit Index                   | NFI          |

|    |   |       |
|----|---|-------|
| 22 | Root Mean Square Error of Approximation | RMSEA |
| 23 | Exploratory Factor Analysis             | EFA   |
| 24 | Confirmatory Factor Analysis            | CFA   |
| 25 | Composite Reliability                   | CR    |
| 26 | Average Variance Extracted              | AVE   |
| 27 | Maximum Variance Shared                 | MSV   |
| 28 | Average Shared Variance                 | ASV   |
| 29 | Statistical Package for Social Sciences | SPSS  |

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## **CHAPTER 1**

### **INTRODUCTION**

First chapter of thesis starts with the background of the study, further describes the significance of this study in the context of international entrepreneurship. Research objectives of the study along with proposed research model and operational definitions of the constructs used in the model are also given at the end of the chapter.

#### **1.1 Background of the Study**

SMEs are of vital importance and considered key contributors to international entrepreneurship. These small and medium enterprises are playing a significant role, particularly in emerging economies. Although, international entrepreneurship is an emerging area of research in international business and entrepreneurship, limited attention has been given to SMEs sector in India as an important emerging economy. SMEs from few sectors like information technology and pharmaceuticals have received some attention of researchers, but majority of other sectors are still in dark. This study strives to empirically investigate internationalization of SMEs from manufacturing sector of Punjab which is one of the industrialized states of India. Attempts are made to examine determining factors of internationalization and performance of manufacturing SMEs in Punjab. It initiates from aim of contribution to the body of knowledge in international entrepreneurship and commitment to improvement of performance in SMEs of Punjab in global markets.

International entrepreneurship is the interface of entrepreneurship and International business, due to increased globalization and hyper-competition, it has emerged as a major area of research (Antonic and Hisrich, 2001). Since the last more than two decades, international operations have not only attracted the attention of entrepreneurs and investors, but academicians and policy makers too (Amal and Filho, 2010). Internationalization has emerged as a major theme in international entrepreneurship research. It has been viewed in organization theory, strategy, marketing, International management, and Small Business

management (Ruzzier, 2010). Research has been carried in both large and small firms, issues researched like international decision making, international activities, patterns, internationalization process, favorable and unfavorable factors (Johanson and Mattson, 1993; Ruzzier et al., 2006, 2007; Spence and Crick, 2006; Tuppara et al., 2008; Fernhaber et al., 2008; Yang et al., 2009; Amal and Filho, 2010; Chelliah and Sulaiman, 2010; Nik-Abdullah and Zain, 2011).

There has been a steady increase in SMEs internationalization activities since last decade (Coviello and McAuley, 1999; Nik-Abdullah and Zain, 2011). Moreover, emergence of International Entrepreneurship as an interested research area has brought SMEs internationalization research in light (Coviello and Munro, 1995; Crick and Jones, 2000; Knight and Cavusgil, 2004).

Internationalization contributes to economic growth, so, is of vital importance to many countries (Jaffe and Pasternak, 1994) and to a country's well-being and its reputation in international arena (Dichtl et al., 1994). internationalization is significant to an enterprise's progress (Peng and Delios, 2006; Nik-Abdullah and Zain, 2011). There are several reasons which stroked need for internationalization as: threat to position in home market, opportunities in foreign markets, and, forces due to external events (Luostarinen, 1979; Hisrich et al., 2010; Nik-Abdullah and Zain, 2011; Scarborough et al., 2012). According to Zahra et al. (2005a), Various motivational factors influence entrepreneurs for internationalization of their operations. Market expansion, increasing profits, and exposing to innovative ideas, are the influencing factors for going out of domestic market.

International expansion is significantly important for SMEs, traditionally characterized as: having a small financial base, focus to limited domestic market, and are geographically restricted in scope (Barringer and Greening, 1998, Chetty, Johanson, and Martin, 2013; Colapinto et al., 2015). Emerging role of SMEs in international business reflects the significance of their expansion (Oviatt and McDougall, 1999).

### **1.1.1. Research Gaps**

Attempts of scholars to develop frameworks of explaining international entrepreneurship and its effects, have, however, mostly focused on the applications of several theoretical perspectives. Essentially, these phenomena have been explained by refuting applicability of previous frameworks (e.g., Oviatt and McDougall, 1994; McDougall et al., 1994; Buttriss and Wilkinson, 2006). In addition, international entrepreneurship field has fragments, inconsistency, lack of theoretical integration, thus, leading to ambiguous progress of this field (Coombs et al., 2009; Keupp and Gassmann, 2009; Jones et al., 2011). Further, previous research has not yet explained a united framework of connecting different antecedents and outcomes of internationalization followed by newly established and already established enterprises (McDougall, 1989; McDougall and Oviatt, 2000; Young et al., 2003; Georgiou et al., 2005; Jones and Coviello, 2005; Jones et al., 2011). Mostly this area has remained untouched, thus, exposing a major gap of developing a framework of explaining international entrepreneurship.

Although, research in international business has made some progress, some key issues remained unsolved, due to various shortcomings (Zahra and George, 2002; Sarasvathy, 2004; Zahra, 2005). As an example, mostly research focus has remained on hi-tech firms from developed countries, however, little emphasis has been given to firms in traditional sectors (Bloodgood et al., 1996; Zahra et al., 2000; Bruton et al., 2008; Coombs et al., 2009; Keupp and Gassmann, 2009; Senik et al., 2010; Coviello et al., 2011) and knowledge on international entrepreneurial activities from emerging economies is very little (Kiss et al., 2012).

Large number of studies have established a presumption that measurement of international sales revenue is the only indication of internationalization (McDougall and Oviatt, 1996; Roberts and Senturia, 1996; Reuber and Fischer, 1997). Further, most of the previous studies have concluded on basis of case studies or samples of relatively very small size (Autio et al., 2000; Bloodgood et al., 1996; Tiessen and Merrilees, 1999; Coviello and Jones, 2004; Chelliah and Sulaiman, 2010, Saad, 2014).

The research explores main industries of manufacturing sector in Punjab, in an emerging economy, India, with intentions of validating theories based on mature economic contexts in emerging economies. Exploration of varied industrial contexts helps scholars of entrepreneurship and international business in enhancing the understanding of relationships of these industrial variables with patterns of internationalization in SMEs, further, theoretical contribution in generalization up to extended economic sectors as recommended by (Zahra and George, 2002).

Performance outcome has been of keen interest to researchers of small businesses in recent past (Westhead et al., 2001; Fahy, 2002; Dimitratos et al., 2004; Chio et al., 2006; Zhou et al., 2017; Lu and Beamish, 2006; Pangarkar, 2008; Coombs et al., 2009; Keupp and Gassmann, 2009; Chandra and Coviello, 2010; Hagen et al., 2012; Kiss et al., 2012; Saad, 2014). Effect of internationalization on firm's financial status has dominated the interest of researchers in analyzing performance outcomes.

Assessment of performance accurately and properly is a crucial determinant of firm's success or failure. Identification of performance indicators reflecting the competitiveness of firms is needed. As a traditional approach, indicators of financial performance like "firm revenue", "market share", and "return on investment (ROI)" have been widely used, encouraging managers to focus on short term gains, however, in current global competitive environments non-financial performance indicators combined with financial performance indicators provide picture of performance more clearly (Tseng et al., 2009). Even to new ventures financial performance cannot be the major indicator of explaining their internationalization. Strategic goal achievements can be the reason of international expansions for new ventures. Furthermore, studies have established connections between internationalization and non-financial performance. Oviatt and McDougall (2005a) has linked internationalization to market share and competitive advantages, whereas, Zahra et al., (2000) has linked it to technological learning and knowledge acquisition. In view of achieving clear results, and justifying the internationalization outcomes, this study applied both financial and non-financial performance indicators.

Researchers in entrepreneurship have recognized the important role of external environmental factors on strategic decision making of firms (Zahra et al., 1997; Abdullah, 1999; Preece et al., 1999; Zahra and Bonger, 2000; Acs et al., 2001; Francis and Dodd, 2004; Jones and Coviello, 2005; Mahajar, 2005; Oviatt and McDougall, 2005; Shamsuddoha et al., 2009; Saad, 2014). According to Itami and Roel (1987) external support and links to other established networks influences the path of companies in positioning themselves, particularly in foreign markets. As suggested by (Van De Ven, 1993; Arowomole, 2000; and Kuratko, 2004; Mohd, 2005) that entrepreneurial performance is significantly predicted and affected by external factors. In addition, Van De Ven (1993) argued that all those studies in entrepreneurship research are incomplete and invalid which do not take external factors into consideration. Present research study integrates external environmental factors in form of government support, to seek better documentation and modeling of internationalization and firm performance relationships.

Since the last decade activities of SMEs internationalization are steadily on increase (Coviello and Mc Auley, 1999; Nik-Abdullah and Zain, 2011). According to Zahra and George (2002) majority of the studies have focused the process of internationalization, the antecedents and their impact on performance of SMEs remained to be explored. In addition, the exploration of determining factors of internationalization in SMEs, remains a major and unfilled gap in the literature of entrepreneurship and international business, especially in developing and emerging economies (Senik et al., 2010; Chelliah et al., 2010; Chelliah and Sulaiman, 2010; Nik-Abdullah and Zain, 2011).

SMEs sector plays an important role in Indian economy. More than 45 percent of manufacturing output, 40 percent of exports, are contributed by SMEs only. In the country's GDP these SMEs contribute around 8-9 percent. This sector is the second largest after agriculture, in providing employment. But the firm related issues of these SMEs remain unexplored and unsolved. The biggest research challenge in this way is the lack of frameworks. As lack of complete frameworks is a limitation in studying enterprise issues, specifically of international operations in SMEs (Osman and Hashim, 2009). According to

Hashim and Abdullah (2000) majority of the studies in SMEs have emphasized on industry specific characteristics, issues like those influencing performance have been ignored.

## **1.2 Research Objectives of the Study**

In general, this study seeks to explore the internationalization, its determining factors, and the relationships with firm performance in context of small and medium-sized enterprises of Punjab in India.

The study specifically draws the following objectives:

- (1) To investigate the effects of entrepreneurial orientation, global mindset, network relationships, Human Capital and government support on internationalization.
- (2) To analyze the effects of internationalization on firm performance
- (3) To examine the mediating effects of internationalization on the relationships between Entrepreneurial Orientation, Global Mindset, Network Relationships, Government Support, Human Capital, and Firm Performance

## **1.3 Significance of the Study**

In the literature of international entrepreneurship researchers have highlighted many gaps. This study has tried to combine as many as possible to fill up. Although, research in international business has made progress, some key issues remained unsolved, due to various shortcomings (Zahra and George, 2002; Sarasvathy, 2004; Zahra, 2005). As an example, mostly research focus has remained on hi-tech firms from developed countries, however, little emphasis has been given to firms in traditional sectors (Bloodgood et al., 1996; Zahra et al., 2000; Bruton et al., 2008; Coombs et al., 2009; Keupp and Gassmann, 2009; Senik et al., 2010; Coviello et al., 2011) and knowledge on international entrepreneurial activities from emerging economies is very little (Kiss et al., 2012). This study investigates on the SMEs of Punjab, an industrial state of India, as an important

emerging economy. The sample consists of all new and already established firms from diverse industries, to draw comparisons with results drawn from other contexts.

International entrepreneurship field has fragments, inconsistency, and lack of theoretical integration, thus, leading to ambiguous progress of this field (Coombs et al., 2009; Keupp and Gassmann, 2009; Jones et al., 2011). Further, previous research has not yet explained a united framework of connecting different antecedents and outcomes of internationalization followed by newly established and already established enterprises (McDougall, 1989; McDougall and Oviatt, 2000; Young et al., 2003; Georgiou et al., 2005; Jones and Coviello, 2005; Jones et al., 2011). Mostly this area has remained untouched, thus, exposing a major gap of developing a framework of explaining international entrepreneurship. This study used a united framework, connecting antecedents, types, and outcomes of internationalization chased by small and medium enterprises, providing a comprehensive view of internationalization in SMEs of Punjab.

Large number of studies have established a presumption that measurement of international sales revenue is the only indication of internationalization (McDougall and Oviatt, 1996; Roberts and Senturia, 1996; Reuber and Fischer, 1997). This study broadens the construct of internationalization by including scope and speed along with degree as dimensions of internationalization. Construct development of internationalization as a broader and richer than previous ones, and its measurement is one of the major significances of this study.

Further, most of the previous studies have concluded on basis of case studies or samples of relatively very small size (Autio et al., 2000; Bloodgood et al., 1996; Tiessen and Merrilees, 1999; Coviello and Jones, 2004; Chelliah and Sulaiman, 2010, Saad, 2014). To arrive on conclusions more precisely, and justify the results, this study investigated on a large sample as compared to previous studies by a survey to collect primary data from two respondents of each firm.

Previous researches in international entrepreneurship used indicators of financial performance like “firm revenue”, “market share”, and “return on investment (ROI)” to



assess firm performance, encouraging managers to focus on short term gains. Hence, non-financial outcomes of a firm were ignored (Zahra and George, 2002). This study has used both financial and non-financial performance indicators. In addition, to financial performance indicators, non-financial performance in terms of competitive capability and technological learning has been used to arrive on clearer picture of firm performance.

According to Zahra and George (2002) majority of the studies have focused the process of internationalization, the antecedents and their impact on performance of SMEs remained to be explored. In addition, the exploration of determining factors of internationalization in SMEs, remains a major and unfilled gap in the literature of entrepreneurship and international business, especially in developing and emerging economies (Senik et al., 2010; Chelliah et al., 2010; Chelliah and Sulaiman, 2010; Nik-Abdullah and Zain, 2011). To fill up this major gap, this study used five variables extracted from previous theoretical streams and organizational and environmental characteristics, as determining variables of internationalization. The variables used are: - entrepreneurial orientation, network relationships, global mindset, government support, and human capital.

Researchers in entrepreneurship have recognized the important role of external environmental factors on strategic decision making of firms (Zahra et al., 1997; Abdullah, 1999; Preece et al., 1999; Zahra and Bonger, 2000; Acs et al., 2001; Francis and Dodd, 20014; Jones and Coviello, 2005; Mahajar, 2005; Oviatt and McDougall, 2005; Shamsuddoha et al., 2009; Saad, 2014). According to Itami and Roehl (1987) external support and links to other established networks influences the path of companies in positioning themselves, particularly in foreign markets. As suggested by (Van De Van, 1993; Arowomole, 2000; and Kuratko, 2004; Mohd, 2005) that entrepreneurial performance is significantly predicted and affected by external factors. In addition, Van De Van (1993) argued that all those studies in entrepreneurship research are incomplete and invalid which do not take external factors into consideration. This research study integrates external environmental factors in form of government support, to seek better documentation and modeling of internationalization and firm performance relationships in SME sector Punjab.

This research study explores main industries of manufacturing sector in Punjab, in an emerging economy India, with intentions of validating theories based on mature economic contexts, in emerging economies. Exploration of varied industrial contexts helps scholars of entrepreneurship and international business in enhancing the understanding of relationships of these firm level variables with patterns of internationalization in SMEs. Further, theoretical contribution in generalization up to extended economic sectors as recommended by (Zahra and George, 2002).

Despite the significant role of SMEs sector in Indian economy, the firm related issues of these SMEs remain unexplored and unsolved. The biggest research challenge in this way is the lack of frameworks. As lack of complete frameworks is a limitation in studying enterprise issues, specifically of international operations in SMEs (Osman and Hashim, 2009). According to Hashim and Abdullah (2000) majority of the studies in SMEs have emphasized on industry specific characteristics, issues like those influencing performance have been ignored. This study strives to solve these issues in their internationalization process by focusing on SMEs of Punjab, their antecedents or determinants of internationalization, and their relationship with performance in terms of both financial and non-financial.

#### **1.4. Proposed Model of the Research Study**

International entrepreneurship conceptual model by Antoncic and Hisrich (2001) is the base for this research study. The proposed research model for this study is built on the concept of internationalization, including its properties of extent, speed, and scope and its performance. Organizational and environmental characteristics constitute other building blocks of this model. The SMEs studied are represented by their owners and CEOs or highest-ranking officers dealing with international business.

Based on the model of Antoncic and Hisrich (2001), this model has been prepared to integrate conceptually theoretical streams of SMEs internationalization process, and merge entrepreneurship with international business. It will contribute theory by proposing a re-developed and integrative, theoretically conceptual model in international

entrepreneurship. This model focuses on internationalization properties mode, market, product and time, with internationalization predicting characteristics like environmental, firm, and entrepreneurial, and outcome in form of firm performance.

This model advances research in SMEs internationalization by making more clarity on international entrepreneurship and its emergence as a new field of research in international business. International entrepreneurship has emphasized more on entrepreneurship and entrepreneurial characteristics, which is considered as a focus variable in research of SMEs internationalization. Furthermore, the dimension of time or speed is being emphasized, particularly with the growth of born global firms and rapid internationalizers, which signifies speed or time as a strategic dimension of internationalization.

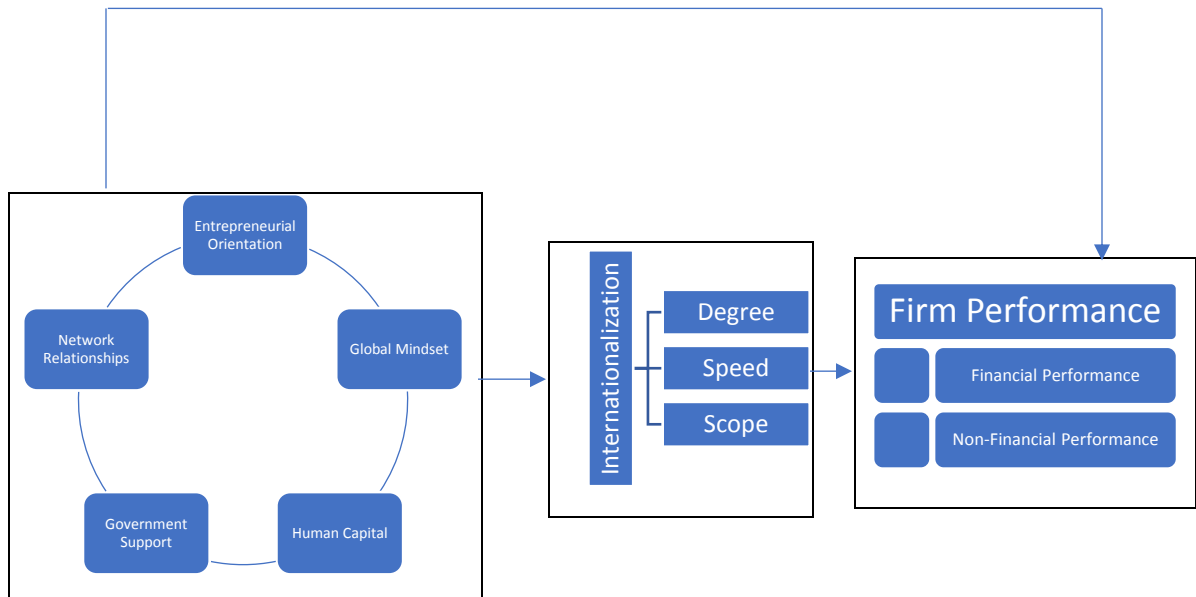
This proposed model tries to overcome the limitations of previous model as specification of variables and construct measurements. As a comprehensive model, specific variables as entrepreneurial orientation, network relationships, global mindset, government support, and human capital, whereas, financial and non-financial performance as other variables along with their dimensions are introduced.

The model is expected to contribute the literature and address the issues of developing an integrated and multi-disciplinary approach for understanding of internationalization in SMEs. According to Coviello et al. (1999) one theory is not sufficient to explain internationalization fully. An integrated approach can explain this better (Chetty and Compbell-Hunt, 2003). Therefore, this model integrated several theoretical streams and models of internationalization, which have been already discussed in the literature review part, as uppsala model, rapid, network theories, resource-based view, and international entrepreneurship theory. Moreover, a multidisciplinary approach has been used including international business, strategic management, and entrepreneurship, for better understanding, fully explaining, and documenting of internationalization in SMEs of Punjab.

Further, this model is representation of a united framework, connecting antecedents, types, and outcomes and internationalization chased by small and medium enterprises, suggested by previous studies (McDougall and Oviatt, 2000; Oviatt and McDougall, 1999). Three types of relationships are proposed in this model. First, relationship between determinants and internationalization (entrepreneurial orientation, network relationships, global mindset, government support and human capital with internationalization). Second, relationship between internationalization and firm performance. The determining variables are expected to be positively related to internationalization, similarly, internationalization is expected to be positively related with firm performance. The third type of relationship is the mediating effect by internationalization on the relationships between these determining variables and the firm performance.

Two perspectives internal factors or organizational characteristics, and external factors or environmental characteristics, are used to study determinants of internationalization. These determinants have been categorized into five main constructs as: entrepreneurial orientation, global mindset, network relationships, government support, and human capital. These constructs have been studied as influencing firm performance (Covin and Slevin, 1989; Miller, 1983; Zahra, 1993; Nummela et al., 2004; Watson, 2007; Yusuf, 2007; Kang and Park, 2012; Saad, 2014). These determinants have been hypothesized of being positively related to internationalization. Another peculiarity of this model is the use of both financial and non-financial performance dimensions to measure firm performance. The proposed research model for this study is presented in figure 1.1.

**Figure 1.1: Proposed Research Model**



## **1.5. Constructs of the Study and their Operational Definitions**

### **Internationalization**

Internationalization is synonymously used for expanding economic activities geographically across national borders (Ruzzier et al., 2006). Javalgi et al. (2003) stated Internationalization as “a process through which a firm moves from operating in its domestic marketplace to international markets”. Same was also stated in the work of Javalgi and Todd (2011). Similarly, with a focus on process and firm’s operations, Korsakiene and Tvaronaviciene (2012) draw the definition of Internationalization as “the expansion of firm’s operations to foreign markets”. Saad (2014) in his composed definition tried to cover all the views of Internationalization as “The process by which firms move from operating in domestic market to foreign markets by adapting the firms’ operations, strategies, structures, and resources to the foreign environment in order to achieve the firm’s objectives”. However, the operational definition for internationalization used in this

study is given as *the process of moving forward operations of a firm, from its home or domestic market to foreign markets, in exposure to environment of varied cultures, implying to adopt the strategies and operations, devise structures and resources, in scope broader than earlier, to achieve firm's objectives.*

### **Entrepreneurial Orientation**

Several studies (Dickson and Weaver, 2008; Kreiser et al., 2002; Miller and Friesen, 1983) stated entrepreneurial orientation of firms as disposition of proactive and innovative activities, with calculated risks to exploit opportunities from prevailing environment. The concept of entrepreneurial orientation is basically embedded in strategy, including in its domain some firm level outcomes, preferences of management, firm's top management's beliefs and behavior (Covin et al., (2006). While as, Runyan (2008) claimed that evidences of entrepreneurial orientation are when entrepreneurs show tendencies towards "innovativeness", "pro-activeness", and "risk taking" behavior. The operational definition for entrepreneurial orientation used in present study is as *firm's inclination to innovations and rejuvenating of market offerings, risk taking to introduction of new and uncertain products and services to new markets and being pro-active to new market opportunities than competitors.*

### **Global Mindset**

Cognitive psychology and organizational theory are the parent fields of the concept of mindset, where interaction of people and organizations with their worlds is interpreted (Gupta and Govindarajan, 2002). Further, they defined global mindset as "a firm's or manager's openness to and awareness of diversity across cultures and markets with a propensity and ability to synthesize across the divides". In another definition of Guy and Beaman (2003) defined it as "an individual's predisposition towards a particular international approach and experience". Another interpretation of global mindset by Rhinesmith (1995) is "a global mindset is a way of being rather than a set of skills". According to Hitt, Jvidan, and Steers (2007) global mindset is defined as "set of individual attributes that enable an individual to influence individuals, groups, and organizations from

diverse social, cultural, and institutional systems”. The operational definition used for global mindset in present study is as *awareness and openness a firm or a manager has gained towards market and cultural diversities, and a tendency towards a particular way of approaching outside domestic markets.*

### **Network Relationships**

Saad (2014) after assessment of other definitions defined network relationships in context of internationalization as “a firm’s management team and employees’ relations with formal, informal and intermediary networks that enables a firm to internationalize its business activities”. Researchers have classified these diverse network relationships into two categories as formal and informal relationships (Coviello and Martin, 1999; Coviello and Munro, 1995, 1997; Harris and Wheeler, 2005; Rialp et al., 2005; Westphal et al., 2006) and further some researchers added intermediary networks as another category (Chetty et al., 2000; Ellis and Pecotich, 2001; Havila et al., 2004; Oviatt and McDougall, 2005). However, it is claimed that formal relationships are rooted into social ties and are social in nature, exchange of products and services takes place through monetary or barter means (Adler and Kwan, 2002). The operational definition used for network relationships in present study is as *the relationships of a firm’s management team and its employees with the networks of formal, informal, and intermediary types which enables the firm in internationalization of its business operations.*

### **Government Support**

Government Support to entrepreneurs is defined by Saad (2014) as “funding policies and incentives, contracts and projects in terms of financial and credit assistance, technical and training assistance, extension and advisory services, marketing and market research, and infrastructure supports that can assist individual entrepreneurial efforts”. Governments support through programmes of general financing and by treating entrepreneurial ventures preferably (Spencer and Gomez, 2004), making resource availability by governmental programs (Doutriaux, 1998), assistance in developing businesses (Phillips, 1993) and government’s assistant programs for exports (Reynolds, 1997) assists people in their

entrepreneurial activities. The operational definition used for government support in present study is as *support for infrastructure, policies for funding and incentives, projects and contracts for assistance in financing and incentives, programs of technical and training assistance, services for extension and advisory, marketing and research, which assists efforts of individual entrepreneurs.*

### **Human Capital**

It was Schultz (1961) who first stated that human capital is formed by knowledge and skills of employee and education plays a role in shaping an individual. Further Mincer (1962) argued that work experience leads to skill development. While, Becker (1993) pointed that most important investments in human capital are education and training of employees. Yusoff et al., (2004) has defined human capital as a form of intellectual capital, which is the combination of different attributes as knowledge, skills, attitudes, mental relationships, and individual actions. Burt (1992) referred it as the range of valuable skills and knowledge a person has accumulated over time. while, Roos (1998) stated the main components of human capital are knowledge, skills and experience of employees. The operational definition used for human capital in present study is as *human capital is a form of intellectual capital of the firm, which is formed by the combination of the knowledge, skills, and experience of human resource of the firm.*

### **Financial Performance**

According to Venkatraman and Ramanujam (1986) Financial performance is an “an accounting-based measurement that measures profitability of the firm through financial ratios such as return on assets (ROA), return on sales (ROS), and return on equity (ROE)”. Researchers have criticized financial performance measures widely used in business research (Chakravarthy, 1986). The operational definition used for financial performance used in present study is as *the performance shown by a firm in terms of its financial indicators like sales growth, return on assets, and return on investments. Financial performance is the indicator of change in revenue and profitability of the firm.*



## **Non-Financial Performance**

Many studies are in support of introducing indicators of non-financial parameters. Managers are encouraged to focus on short term gains, however, in current global competitive environments non-financial performance indicators combined with financial performance indicators provides picture of performance more clearly (Tseng et al., 2009). According to Kogut and Zander (1992) “competitive capability is a firm’s ability to deploy resources using organizing processes and principles to achieve its strategic objectives”. Technological learning as performance is recognized by firm’s capabilities, by learning, creating and applying technological knowledge (Lin, 2003). In the present study operational definition used for non-financial performance is as *performance shown by a firm on other than its financial indicators like achievements in need fulfillment and customer satisfaction, product quality, new product technology, and smart operations. Non-financial performance is the indicator of competitive capability and technological learning of a firm.*

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

This chapter opens with defining of internationalization and discusses all the previous theoretical models of internationalization. Literature is reviewed on all dependent, independent, and mediating variables. The literature included studies on five determining variables which are entrepreneurial orientation, network relationships, global mindset, government support and human capital and their relationships with internationalization and firm performance. In addition, the constructs of internationalization and firm performance are discussed along their sub dimensions. At the end of the chapter hypotheses for this study have been drawn with the support of literature review.

#### **2.1. Definitions of Internationalization**

Generally, Internationalization is considered as a firm-level activity that crosses borders of nations and states (Wright and Ricks, 1994). It covers the behavioral patterns formed, which makes to cross national borders at specific times (Jones and Coviello, 2005; Kuivalainen et al., 2007; Olejnik and Swoboda, 2012). Most of the dictionaries do not define the term 'Internationalization' as such. A single definition of Internationalization with wide acceptance is still lacked. It is interpreted differently in different literature streams (Puthusserry, 2011). Jones (1999) mentioned that the researcher interests and the employed analysis level have an influence on interpretation of this concept.

Webster (2010) defined it as an act which brings something under international control. Though, since few decades Internationalization has been used under all disciplines of business and management, still discrepancies are present among researchers due to persistently misuse, and poor clarity on main dimensions of the concept. Therefore, in spite of, being a focal area of research there is inconclusiveness in the concept (Buckley and Ghauri, 1999; Griffith, Cavusgil and Xu, 2008).

In literature the term 'Internationalization' has been studied with comprehension (Chetty, 1999). However, there is not uniformity in definitions of Internationalization, and any single theory is not sufficient in explaining it (Welch and Luostarinen 1988; Coviello

and McAuley, 1999). Chetty and Campbell-Hunt (2003) suggest that an Integrated approach can better explain the Internationalization. Further, Korsakiene and Tvaronaviciene (2012), studied Internationalization of Norwegian and Lithuanian SMEs by using an integrative approach. The earlier studies on small firms suggested Internationalization as an evolutionary process (Luostarinen, 1979; Johanson and Paul, 1975) which turns firms progressive and committed to, and involvement in, international activities. Though at some point, it can invert to de-internationalize (Calof and Beamish, 1995). Concept of Internationalization was comprehensively analyzed by Welch and Luostarinen (1999), and they arrived on a definition which is widely accepted. They considered that conceptualization of Internationalization is imprecise and normally in broader sense term is used to describe the outward movement in an individual firm's or larger grouping's international operations (p 84). Other theorists like Bilkey and Tesar (1977), Cavusgil (1984) and Johanson and Vahine (1977) viewed Internationalization as incremental increase in international commitment. However, Welch and Luostarinen (1999) believed that "internationalization has both inward and outward components". They perceived in international trade, out-ward and inward components are interlinked. Internationalization of SMEs defined by Welch and Luostarinen (1993) in an easy to understand way as "*The process of increasing involvement in international operations*" the process commonly understood as gradual and sequential, comprising of several stages. Beamish, Morrison and Rosenzweig (2000) considered both economic and process perspectives in its definition as "The processes by which firms both increase their awareness of the direct and indirect influences of international transactions on their future, and establish and conduct transactions with firms from other countries (p. 3)". Both Welch and Luostarinen (1999), and Beamish et al. (2000) highlighted the dynamic and evolutionary character of Internationalization, considered of both outward and inward movements.

Johanson and Mattson (1993, p.306) described Internationalization in a perspective other than the 'stages' or 'gradual', focusing more on relationships, known as 'Network perspective' as "*cumulative process, in which relationships are continually established,*

*maintained, developed, broken and dissolved in order to achieve the objectives of the firm*". However, being focus on relationships mainly, the view is considered somewhat fragmented. On assumption of SMEs working in their natural context, Johanson and Vahlne (1990, p.20) developed a view similar to the view of Johanson and Mattsson (1993), defined Internationalization as "*process of developing networks of business relationships in other countries through extension, penetration, and integration*". In the definition of Coviello and McAuley (1999) along with economic and process perspectives covered, network relationship aspect is covered. Beamish *et al.*, (2000) while covering the network perspective in definition, believed that relationships build in the beginning stages of Internationalization greatly assist in further expansions internationally. Another definition by Hit, Ireland and Hoskisson (2007, p.251) viewed it through diversification prism as "international diversification is a strategy through which a firm expands the sales of its goods or services across the borders of global regions and countries into different geographic locations or markets". In a contrary view, Cuervo-Cazurra, Maloney and Manrakhan (2007, p.710) stated Internationalization as transfer of resources across borders directly by investments or indirectly by product embodiment. However, Internationalization is considered as an innovative process, which necessitates entering into foreign markets Jones and Coviello (2005).

Lehtinen and Penttinen (1999) summarized the basic features of Internationalization process and included two concepts 'international orientation' and 'international commitment' in the definition, these concepts are often used in Internationalization view.

In general, there has been a shift in research focus from defining International activities to resource based requirement for Internationalization. Ahokangas (1998) in resource based view defined SMEs internationalization in terms of resources in their natural context. According to this view, internationalization is viewed as mobilization of resources, which enables and contributes to Internationalization of SMEs in their natural contexts.

Ruzzier et al. (2006) argued Internationalization is synonymously used for expanding economic activities geographically across national borders. Javalgi et al. (2003) stated Internationalization as “*a process through which a firm moves from operating in its domestic marketplace to international markets*”. Same was also stated in the work of Javalgi and Todd (2011). Similarly, with a focus on process and firm’s operations, Korsakiene and Tvaronaviciene (2012) draw the definition of Internationalization as “*the expansion of firm’s operations to foreign markets*”. Saad (2014) in his composed definition tried to cover all the views of Internationalization as “*The process by which firms move from operating in domestic market to foreign markets by adapting the firms’ operations, strategies, structures, and resources to the foreign environment in order to achieve the firm’s objectives*”.

According to Korhonen (1999), a firm is involved in international business by selling products to foreign markets, buying products from foreign, or it can be cooperation with foreign firm in a defined area. Therefore, international operations of a firm are classified into categories of “inward” “outward” and “cooperative” operations.

From the literature so far is shown that in Internationalization, first, inward and outward activities are involved (Calof and Beamish, 1995; Lehtinen and Penttinen, 1999), second, is the adoption of firm’s activities like strategy, structure, and resources to foreign environment (Johanson and Vahlne, 1990; Johanson and Mattson, 1993; Ahokangas, 1998; Lehtinen and Penttinen, 1999; Javalgi et al., 2003; Korsakien and Tvaronaviiien, 2012), and third, is achieving of Firm’s objectives (Johanson and Vahlne, 1990). Based on definitions so far, in this study Internationalization is defined as:

*“The process of moving forward operations of a firm, from its home or domestic market to foreign markets, in exposure to environment of varied cultures, implying to adopt the strategies and operations, devise structures and resources, in scope broader than earlier, to achieve firm’s objectives”.*

## 2.2. Internationalization Theories and Models

International business has been in practice since ages. However, Adam Smith's theory of "absolute advantage", in his seminal work: "The wealth of nations" is considered first research which scientifically explores the possible cause and effect of Internationalization (Mtigwe, 2006). Nation was a unit of analysis in all classical works until mid of the twentieth century. Due to growth in multinational corporations in the post war era, emergence of new views challenging the classical one shifted the prominence from 'nation' to 'firm' as a unit of analysis.

Scholars have not arrived on a theory or model of Internationalization with universal acceptance, despite being enquired from last few decades (Bilkey, 1978; Toyne, 1989; Leounidou and Katsikeas, 1996; Chandra and Newbury, 1997). Theoretical models which are simple and static, fell short in properly explaining this complex and dynamic phenomenon, due to lack of variables (Ford and Leonidou, 1991; Dalli, 1994; Ramaswamy et al., 1996). Moreover, Sullivan (1994) observed, Conceptual and methodological frameworks are defective, results into "*disjointed and inconclusive, partially tested or untested propositions and a segregation of the theory-building process from the hypothesis testing phase of research*" Consequently, researchers are unable in creating a cumulative structure, derived theoretically and empirically tested concepts that can provide scope for further studies.

International theory development has gained momentum after small businesses role in internationalization has been recognized, which earlier was not considered to be independently competent in global markets. As share of small businesses in overall businesses of advanced countries ranges from 75% to 90%, and these small enterprises perform above expectations and recognitions, in both domestic and international markets (Prefontaine and Bourgault, 2002).

As suggested by (Havnes, 1994 and Ahokangas, 1998) Internationalization theoretical models of Small enterprises characterize two viewpoints: market and firm. In market view point of internationalization includes the studies on diversification strategies of large enterprises considered in context of strategy studied in economics root (e.g.

Dunning, 1988; Mahoney and Pandian, 1997). From the firm point of view, stages models of internationalization are included in it, there are rare studies available on firm point of view literature (e.g. Cavusgil and Naor, 1987).

### **2.2.1. Monopolistic Advantage**

This theory suggested presence of multinational firms because a firm possesses inimitable sources, makes it superior over foreign enterprises in their markets (Hymer, 1976, cited in McDougall et al., 1994). Such advantages example superior ability possessed by multinational firms, are not easily acquired by others in market. Multinational firms possess superior knowledge of product manufacturing, brand image, unique products, organizational talent (Hymer, 1976, cited in McDougall et al., 1994). Once a firm has succeeded in developing superior knowledge, such advantage can be utilized in abroad without incurring additional costs above the advantage of home market (Caves, 1971, cited in McDougall et al., 1994). Entrepreneurs from local markets must borne additional heavy costs to develop this knowledge, makes them unable in competition with foreign enterprises though, they have advantage of domestic market knowledge.

### **2.2.2. International Product Life Cycle**

Product life cycle theory of internationalization by Vernon (1966) in its deep approach, focuses on three main components: location, operational mode and time for predicting internationalization of firms (Junior, 2010). Cost advantage theory was criticized for lacking realism. Stress was given to innovations in products, scale economies and their effects, uncertainties and their influence on trade beyond borders (Vernon, 1966:190). A link was established between internationalization and product life cycle of an enterprise. It was believed that innovative firms have specific implications from each stage for their products (cited in Melin, 1992: 103). Similarity in patterns are found between international trade and product life cycle of a local firm (Vernon, 1966; Wells, 1968). International production has been influenced by low labor cost advantages. In view of product life cycle

and international business, firms will keep moving across nations and other locations to achieve and maintain cost advantages.

According to Vernon the introductory stage remains more domestic oriented. In this stage, a firm incurs heavy expenses for product development. Therefore, firm needs to communicate properly with all its stakeholders. So, firm will focus on markets where product has been developed (Melin, 1992, Puthussery, 2012). Second is the growth stage, in this main focus remains on exporting, to draw benefits from economies of scale. In this stage some manufacturing firms start trying for direct investments in only those countries where their products are demanded (Melin, 1992).

While, Sundaram and Black (1995) stated that in international product life cycle theory countries of origin achieve “*comparative Advantage*” in initial stages in producing specific goods, but subsequently this advantage is lost as production remains no longer confined to the initial producer, makes product standardized, this is the maturity stage facing market saturation. Now at this stage firms have to relocate manufacturing to countries having cheap labor, in order to make gains of cost advantage (Almor, Hashai and Hirsch, 2006; Melin, 1992). The last remains the final stage with increasing decline, even sometimes at home market, forcing manufacturer to close down from home market (Melin, 1992).

Similar in ways to other theories and models of internationalization international product life cycle theory is considered limited in application, therefore, has not achieved much appreciation by scholars of internationalization.

### **2.2.3. International Portfolio**

According to this theory international business investment decisions are taken to maximize profit flows, while reducing risk exposure by economic shocks in local markets, by investments in foreign markets (Rugman, 1971; Rugman and Verbeke, 1992). Porter (1990) and Ohmae (1995) have raised the strategic perspective in international business, while using nation and regional economies as analysis units. The industrial structures



along with the nation and the regions are perceived as sources of firm's competitive advantage.

In contrast, studies of international portfolio diversification have shown contradictory evidences regarding gains to firms from diversification (Calvet, 1981). Besides this, fluctuations in currency rates and dividends taxable to foreign markets can result in reduction of gains from foreign diversifications. Although, International portfolio theory has failed to explain clearly internationalization, but its contribution can't be ignored in highlighting of some strategic motives that a firm considers before boarding on internationalization.

#### **2.2.4. Internalization**

According to Internalization theory a firm develops its own internal market when transactions are at low costs within the firm and continues till costs and benefits of additional internalization are marginalized (Buckley and Casson, 1993). Buckley and Casson (1976) first tried to discuss this concept. Attention was drawn towards how intangible assets or advantages based on knowledge, in a firm can provide cost economic benefits (Pitelis and Verbeke, 2007, p.141). The work of Buckley and Casson (1976) is the first which shifted focus from country specific factors to firm and industry specific factors (Henisz, 2003). As per this approach firm structures or resources are utilized to carry business operations rather turning to market investments by incurring heavy costs (cited in Junior, 2010).

The theory is generally based on the principle (1) internalizing helps firms in profit maximization in externally imperfect markets, creates internal markets and brings all links in control through common ownership for cost benefit analysis. (2) locations are selected by firms for separate activities, so that operational costs are offset (Buckley and Casson, 1976; Buckley, 1988; Buckley et al., 2007; Henisz, 2003).

Internalization may contain operations and activities integrated vertically, which were earlier conducted by intermediate markets, owned and governed by the firm when natural markets are missing or imperfect. Internalization of transactions beyond national

borders creates multinational firms. Antecedents to market internalization includes, gathering and assessing process of information which helps management in determining best approach to foreign expansion (Ruzzier et al., 2006). The pioneers of this theory Buckley and Casson (1976), highlighted that internalization is a firm's own ability of innovations to create a specific advantage for guiding across national borders.

As compared to other economic approaches internalization approach is clearer on international business activities (Buckley and Casson, 2009; Junior, 2010). All due to its short-comings internalization theory has not added a significant value to explain international business behavior. First, the theory is rooted in reason that internationalization of a firm is brought by market failure and internationalization decision is influenced by firm's market success. Second, this theory argues that cost reduction is the basic reason of internationalization, which is false representation of reality in international business behavior (Jones, 1998).

### **2.2.5. The Eclectic Paradigm**

The eclectic paradigm theory or ILI paradigm is based on Dunning's work of MNE existence and the reason of their growth and expansion (Dunning, 1979, 1981, 1988, 2001). This theory is widely used for explaining FDI of MNE's. This paradigm views all economic approaches in holistic. This paradigm originated from the work of Dunning (1958) when he argued that FDI of MNE's cannot be explained by economic approaches individually. That study marked the distinction ownership and location advantages for studying investments of America into British industries (Dunning, 2000:168). This paradigm claims three factors influence MNE's decision to make investments through FDI.

*“(O) Ownership-specific competitive advantage of the firm seeking to invest, (L) Location advantages of particular countries or regions providing value to MNEs. And (I) is the firms' ability to internalize their ownership and location advantages”.* Dunning's OLI advantage is constituted by these three factors.

There are three types of advantages which determine internationalization of economic activities: ownership advantages, internalization advantages, and location

advantages. Dunning (1988) highlighted Ownership advantages are company related resources as intangible assets owned by firm, technological capacities or innovations in products. Internalization advantages are related to relational factors, refers to a firm's capacity in managing and coordinating activities in internal value addition chain. And location advantages also referred as host country factors, are related to prevailing productive factors of a geographic area. Their occurrence is possible when conditions are favorable to combine home country produced products with factors and intermediate products manufactured in separate locations.

As per Dunning (1981) rationale for a firm's internationalization is that *“the more a country's enterprises possess ownership-specific advantages, the greater the incentive to internalize them; and the more these enterprises find it profitable to exploit the advantages outside their national boundaries, the more likely they are to engage in foreign direct investment. A country's involvement in international direct investment then becomes a function of the ownership and internalization advantages of its enterprises relative to those of other nationalities and its location-specific endowments relative to those of other countries”*

In comparison to previous theories this theory has strived to better understand the motives behind internationalization. Yet, an integrative has not been presented, this theory doesn't explain and predict foreign entry modes choices. Another failure of this theory is not answering the question as why two firms engaged in similar business having equal ownerships internationalize. Moreover, this theory doesn't regard home country effect and firm's internal factors on decisions of internationalization (Ekeledo and Sivakumar, 2004).

All economic approaches assume profit maximization as central point, revolving around are all the organizational activities. Theorists of this approach didn't explain internationalization from its dynamic view, ruled out dependency on other events. According to Johanson and Vahlne (1977) economic approach theorists are silent on learning and knowledge of internationalization. The main limitation of these theories is focus on FDI of MNEs mainly, so, the approach is inadequate in explaining the internationalization of small businesses.

### **2.2.6. Resource Based View**

Resource based view has originated from strategic management, it is believed to be developed from writing of Penrose (1959) along with scholars of strategy like Chandler (1962) and Andrews (1987). Focus of this theory is on sustainable and inimitable traits as sources which drive firms towards competitive advantage needed for internationalization and performance (Lawrence and Lorsch, 1967; Stone and Brush, 1996; Teece et al., 1997).

In this view, resources and capabilities are defined as: *“all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm to conceive of and implement strategies that improve its efficiency and effectiveness”*, are a firm’s important drivers for performance and attaining an exclusive strategic position in competitive markets (Barney, 1991, p.101). A firm develops capability to obtain and maintain a profitable position in market, the capacity depends upon firm’s important resources (Conner, 1991). According to Barney (1991) environmental factors are not only drivers of its success, but, its own functions also influence the environment. Further, suggested internationalization needs valuable, rare, non-imitable, and non-subsumable resources. While, as per Grant (1991) resources should be durable, transparent, transferable, and replicable.

Main assumption of RBV is that competitive strategies are based on firm’s own attributes instead of industry environment. Madhok (1997) concluded that firms adopt strategies that best utilize their resources between firms, transferring crossing borders. Several resources external to a firm were highlighted by scholars as: networks, institutional linkages, and arrangements of regional collaborations (Malmberg and Maskell, 1997; McEvily and Zaheer, 1999). Considering these assumptions Ruzzier et al. (2006) emphasized about emerging of a resource based viewpoint of internationalization.

In international business research some scholars have tried to explain internationalization through RBV and concluded that growth strategy of multinational enterprise can be easily explained (Tseng et al., 2007), role of intangibles like knowledge in accelerating internationalization processes (Weerawardena et al., 2007). Internationalization of SMEs by Ahokangas (1998) and Loane and Bell (2006).

Although, this theory is considered perfect to explain internationalization process of firms, still the theory is silent on strategies of selecting foreign entry modes (Ekeledo and Sivakumar, 2004). Further, Malhotra et al. (2003) claimed it is unable to measure several intangible assets.

### **2.2.7. Uppsala Model of Internationalization**

Uppsala internationalization model originated at Uppsala university. It developed from the works of Johanson and Vahlne (1997,1990, 1977) and Johanson and Paul (1975) and is considered one of the accepted approaches explaining process of internationalization. Founders of this approach criticize economic approach for taking profit maximization as the main assumption. Their study was based on Swedish firms. According to Johanson and Vahlne (1997, 1990) “Internationalization of a firm is process of increasing a company’s international involvement as a result of different types of learning”.

In their study of Swedish firms, internationalization was found a “dynamic and incremental activity which is affected by perceived uncertainty and a lack of knowledge of foreign markets”. Hence, they emphasized learning for knowledge acquisition, and knowledge of foreign markets is essential for entering into foreign markets. This is considered fundamental principle of this model.

This model shows how international commitment of firms is increased in small incremental steps in foreign markets where their operations are underway. Next, firms start entering markets located at psychic distances. This results in increment of knowledge through foreign operations, having impact on internationalization in selection of country markets and entry modes. While, incremental activity is carried gradually and slowly, allowing managers to learn about markets through experiences. Knowledge about a particular market will reduce the risk of operations, will lead to more investment in the market (Forsgren, 2002). According to Johanson & Vahlne (1977) those who work in specific markets will deeply understand threats and opportunities about that market better than outsiders. Further (Johanson & Vahlne, 1990, p.11) pointed out that experience in addition to generation of opportunities, also drives the process of internationalization further. Based

on these characteristics a framework was developed in the study of Johanson & Vahlne (1977) shown in figure 1. According to this framework “The general and experiential market knowledge and resource commitment of firms (state aspects), affect commitment decisions and current business activities (change aspects).”

The state aspects in a firm are “market knowledge” and “market commitment” about foreign markets and operational activities. The change aspects involve “decisions to commit resources” and “performance of current business activities” (Johanson and Vahlne, 1990: 12). In the whole process knowledge plays an important role.

The Johanson and Vahlne (1977, 1990) model highlights the role of psychic distance. They claimed that a firm first enters into a neighboring market and gradually moves into other physically distant markets.

Critics of Uppsala model of internationalization argue that model is deterministic (Reid, 1981). According to Andersson (2000) there are no strategic choices left for individuals in growth and development of a firm. Furthermore, this pattern of internationalization is not followed by all firms now, many firms are internationalized from their very inception called born global (Madsen and Servais, 1997) or created by international new ventures (McDougall, 1994a; Oviatt and McDougall, 1994) some may emerge as global startups (Oviatt and McDougall, 1995).

### **2.2.8. Innovation Adoption Process Model**

Like Uppsala model (U-Model) Innovation process model (I-Model) of internationalization is rooted in behavioral theories (Anderson, 1993). According to theorists of this model internationalization decision of a firm is considered as its innovation. Roger’s (1962) is the first study where from concept of I-model is derived. In this study diffusion of innovation is conceptualized into stages as: “awareness, interest, evaluation, trial, and adoption” (Andersen, 1993; Gankema et al., 2000).

Andersen (1993) comprehensively analyzed the studies (e.g. Bilkey and Tesar, 1977; Czinkota, 1982; Cavusgil, 1980; Reid, 1981). He observed in all these articles tried to apply “innovation stages” of Rogers (1962) gradually, and to perceive how firms initiate

exports and involve in international markets, whose operations were earlier limited to domestic markets. These models contain many sequential stages, but number varies from model to model (Leonidou and Katsikeas, 1996). Three main stages were recognized as “pre-export”, “initial export”, and “advanced export”. Differences have been observed between first two (Bilkey and Tesar, 1977; Czinkota, 1982) and the last two (Cavusgil, 1980; Reid, 1981). According to studies of Bilkey and Tesar (1977) and Czinkota (1982) firms do not show interest in exports at first stage, and in second stage are partially interested. It is shown that there are some external market factors or a ‘push’ mechanism in firms which influence exporting decisions. However, studies of Cavusgil (1980) and Reid (1981) are contradictory to this and argue firms show interest and are getting involved involve actively in exports from the first stages. Thus, there is some “internal agents” or “pull mechanism” influencing firms for moving to next stages. Apart from the differences mentioned and some terminological differences, these models are not very apart from each other (Andersen, 1993: 212).

U-model is dynamic in nature and focuses on knowledge, while, focus of I-model is stages. In terms of applications these models are differed as U-model can be applied in any type of firms MNEs as well as SMEs, where as I-model is more related to small firms.

### **2.2.9. Network Perspective**

After the economic and process approaches network is the third main stream theory of internationalization. this perspective originated in 1980s, when researchers like Johanson and Mattsson (1988) observed that networks help in facilitating international activities of firms. They defined networks as “the relationships a firm has with its customers, distributors, suppliers, competitors and government and consider them as the actors of a business network”. They argued that these relationships between components of a business network increases by numbers and gets stronger when a firm internationalizes.

By this approach networks can be used as starting points to analyze internationalization of a firm, as firms are active members of business networks (Johanson

and Mattsson, 1993; McAuley, 1999). Even the pioneers of Uppsala model Johanson and Vahlne (1990) examined internationalization through network point of view.

While explaining the most important question of “why and how firms internationalize their operations through network approach?” Johanson and Mattson (1988) stated in three stages a firm achieves internationalization. First is international expansion, by establishing relationships in new foreign markets with counterparts working there. Second is penetration, means commitment and resource development in established foreign networks. And the last one is international integration, through developing connections between their positions in networks in many countries or coordination of networks. The argument was made that fact behind internationalization of firms is that other firms in their networks internationalize.

The model of Johanson and Mattson (1993) emphasized interactions within networks to help in learning gradually and developing market knowledge. In a network firms can be seen from both micro (firm to firm) and macro (firm to network) perspective. While combining these elements Johanson and Mattsson (1993) categorized internationalization into four stages: the early starter, the late starter, the lonely international, and the international among others. They stated that internationalization of a firm means establishing and developing positions related to counterparts in their foreign networks. Usually these firms are involved in domestic networks, and further develop business relationships in foreign networks. According to Ruzzier et al. (2006) both the process and network theories have neglected the individuals’ strategic position in firm and their influence in internationalization of small and medium enterprises.

In a firm knowledge in long term relationships is vested in one person, impacts substantially to internationalization by social relationships with others. These social relationships are of immense importance to entrepreneur and business (Davidsson and Honig, 2003; Hoang and Antoncic, 2003). These social networks work as sub-networks within business networks, effecting and getting effected by resources added and selected operations mode (Holmlund and Kock, 1998).



Though there are some limitations of this theory still it explains how resources, activities, and actors within business networks of firms affect their internationalization and its dimensions in small businesses (Ahokangas, 1998), whether firms in alone or in clusters.

#### **2.2.10. International Entrepreneurship**

This approach of SMEs internationalization is the combination of entrepreneurship and international business. International entrepreneurship is the new emerging area of research, born at a point where entrepreneurship and international business are interfacing each other (McDougall and Oviatt, 2000; Antoncic and Hisrich, 2000). This recently born research field is in search of rightly defining the intersecting point of these two paths of research, or the firm's entrepreneurial activities crossing borders. McDougall and Oviatt (2000) defined entrepreneurial orientation as "combination of innovative, risk-seeking behavior that crosses national borders and is intended to create value in organization". Later on, international entrepreneurship was defined by them as "the discovery, evaluation, and exploitation of opportunities across national borders to create future goods and services" (McDougall and Oviatt, 2005).

Theory of international entrepreneurship and network theory have contributed to international business with most recent and widely acceptable literature. The extremes of both the previous theories incremental and network are represented by international entrepreneurship theory. The incremental theory has focus on large and multinational firms progressing slowly in international market, while as the focus of network theory is on speedily internationalized small business firms. Theory of international entrepreneurial claims that entrepreneurial behavior of both individual and firm are bases for entering foreign markets (Mtigwe, 2006). Some authors make arguments about theory of international entrepreneurship and network theory being synonymous to each other. But there exists the significant difference between them. Presence of formal networks is not necessary for existence of international entrepreneurship, in case of south African small firms, most of them internationalize without getting assisted from other partners in business networks (Mtigwe, 2006). Therefore, firms can be internationalized by two methods, by

assistance of formal networks and without assistance. Further, internationalizing through networks may be possible only in industry specific firms. These arguments make theory of international entrepreneurship and network theory complementary to each other, and synonymy can be rejected (Saad, 2014).

The focus of research in international entrepreneurship has been shifted to “born global firms” which are dedicated to internationalization from their inception, researchers are interested in studying their modes of operations like exporting and non-exporting to empirically validate rapid internationalization activities. (Korsakiene and Tvaronavien, 2012).

### **2.3. Dimensions of Internationalization**

Dimensionality of internationalization has been assessed by exploring the studies which have strived to measure this construct in context of SMEs. Although the definitions of SMEs vary from country to country but, constructing dimensions of internationalization process remain almost same.

The study conducted by Sullivan (1994) is considered most representative, diverse and helpful for developing a measure of Internationalization. In this study, it has been concluded that ‘foreign sales as a percentage of total sales’ is an extensive measure of Internationalization. In a similar study, Contractor et al. (2003) measured Internationalization through sum of foreign sales out of total sales, number of foreign employees out of total employees and number foreign offices out total offices. Therefore, this study has added further dimensions to the construct.

While, Reuber and Fischer (1997) in their study used foreign sales as a percentage of total sales to measure Internationalization in SMEs. According to the concept of ‘Rapid Internationalizer’s’ three main factors measure the extent of Internationalization: Exports as a percentage of total sales, the number of foreign countries served, and resource diversity (Dimitratos and Jones, 2005).

Saad (2014) conducted a study on SMEs of Malaysia and measured Internationalization using four different measure: A percentage of a company’s total sales

from international operations, percentage of company's previous year's profit from international operation, total number of a company's international markets and the duration the company has been actively involved in international operations.

From the literature has been shown that Extent or degree, scope, and speed are the main three dimensions of Internationalization, and these have been used by researchers separately (Zahra and George, 2002).

### **2.3.1. Extent or Degree of Internationalization**

Degree of Internationalization is studied as a dimension of internationalization by (Zahra et al., 2000; Burgel and Murray, 1998; Reuber and Fischer, 1997; Karagozoglu and Lindlell, 1997; McDougall and Oviatt, 1996). Generally, the extent or degree of Internationalization has been measured by the 'percentage of firm's sales generated from foreign markets' and 'foreign sales as a percentage of total sales' is a standard measure of degree of Internationalization. However, researchers used multiple factors to measure this variable. Javalgi and Todd (2011) used proportion of foreign sales out of total sales to measure degree of Internationalization. Measurement index by Sullivan (1994) to measure degree of Internationalization consists of foreign sales as a percentage of total sales, foreign assets as a percentage of total assets, and foreign subsidiaries as a percentage of total subsidiaries to measure the degree of Internationalization. Similarly, Reuber and Fischer (1997) conducted a study on Canadian software firms to measure degree of Internationalization, 'the percentage of foreign sales' and 'the percentage of the employees that spend more than 50% of their time on international activities' were used. Subrahmanya (2014) also studied degree of internationalization using the above measures.

### **2.3.2. Speed of Internationalization**

Speed of Internationalization was examined as dimension of internationalization by (Burgel and Murray, 1998; Lindquist, 1997; Fontes and Coombs, 1997; Reuber and Fischer, 1997; Robert and Senturia, 1996). In all these mentioned studies speeds of Internationalization is defined as the time duration from the inception of firm to its foreign

sales generation. Rueber and Fischer (1997) in their study used the term ‘delay’ for duration firms take in domestic operations before their foreign sales generation. Time taken in domestic operations before initial global activities is the speed of Internationalization of a firm (Robert and Senturia, 1996). Chetty, Johanson, and Martin (2013) conceptualized the speed of internationalization rooted in the concepts of Uppsala model, and proposed a model of its operationalization. While, Casillas and Acedo (2012) has reviewed this concept in perspective of internationalization of a firm and described how speed of internationalization is multidimensional, this study also proposes the agenda for future research to study the role of speed in internationalization process.

### **2.3.3. Scope of Internationalization**

Scope of Internationalization is the geographical scope of operations and is measured by number of foreign markets within which the firm is having operations, countries, divisions and regions are referred as foreign markets (Zahra et al, 2000; Burgel and Murray, 1998; Reuber and Fischer, 1997; Roberts and Senturia, 1996). Number of foreign countries in which firms operate is used as a proxy to scope of Internationalization by Zehra et al., (2000). Similarly, scope of Internationalization was viewed by geographic scope of sales (Reuber and Fischer, 1997). Saad (2014) in his study on SMEs of Malaysia, along with three other measures used ‘duration company has been actively involved in international operations’ as a proxy of measuring speed in measurement of Internationalization construct.

Considering Internationalization as a multidimensional construct this study has studied internationalization by taking into consideration all the three dimensions: Degree or extent, Speed, and Scope. Measurement scale has been developed by covering all these dimensions into respective items. All the dimensions and construct as a whole have been found reliable and valid.

## **2.4. Determinants of Internationalization**

Internationalization of SMEs is determined by many internal and external factors as suggested by studies (Wright et al., 2007; Prefontaine and Bourgault, 2002). Factors which are firm specific, within the control and management of firm are the internal factors like international business experience, networks, and strategic considerations manageable by firm. Firm characteristics and motivational aspects are the influential factors for internationalization of manufacturing sector SMEs, further networking influence most on SMEs internationalization among all the factors (Che-Senik et al., 2010). There are many other studies which claimed networks are important determining factors for internationalization of small and medium enterprises (Coviello, 2006; Moen et al., 2004; Zain and Ng, 2006; Sharma and Blomstermo, 2003; Coviello and Martin, 1999; Coviello and Munro, 1997, 1995).

External factors are those outside the firm's internal environment as industry and country specific factors, as these do not exist within the firm so, are not controllable by firms (Ekeledo and Sivakumar, 1998, 2004; Koch, 2001). Hashim (2000b) argued that internal factors like characteristics of entrepreneurs, and organizational context are not the only factors influencing success of small and medium enterprises, the external factors do have influence of their success. In another study conducted by Yang et al. (2009) concluded that firm's internationalization is influenced broadly by "industry and resource-based considerations" which are integrally formed by both local and international institutional frameworks governing these activities. Along with firm's own strategic factors government assistance programs widely influence development of SMEs (Hashim and Hassan, 2008).

### **2.4.1. Entrepreneurial Orientation**

Entrepreneurial orientation received due attention of scholars and is emerging as one of few areas in international business where a cumulative body of knowledge is developing. The concept of Entrepreneurial orientation has attained a central position in the whole domain of Entrepreneurship and has attracted attention both theoretically and empirically (Covin, Greene, and Slevin, 2006).

Entrepreneurial orientation can summarize processes, practices, and can influence decision making in a firm (Lumpkin and Dess, 1996). In addition, strategic orientation of an entrepreneurial firm is shaped by entrepreneurial orientation (Wiklund and Shepherd, 2003). Due to its strategic importance entrepreneurial orientation is considered a major construct in both strategy and entrepreneurship (Soininen et al., 2011).

Many studies (Dickson and Weaver, 2008; Kreiser et al., 2002; Miller and Friesen, 1983) stated entrepreneurial orientation of firms as disposition of proactive and innovative activities, with calculated risks to exploit opportunities from prevailing environment. The concept of entrepreneurial orientation is basically embedded in strategy, including in its domain some firm level outcomes, preferences of management, firm's top management's beliefs and behavior (Covin et al., (2006). While as, Runyan (2008) claimed that evidences of entrepreneurial orientation are when entrepreneurs show tendencies towards "innovativeness", "pro-activeness", and "risk taking" behavior.

According to Miller (1983) "*An entrepreneurial firm is one that engages in product market innovation, undertakes somewhat risky ventures, and is first to come up with "proactive" innovations, beating competitors to the punch*". In many studies entrepreneurial orientation is considered as a multi-dimensional construct of dimensions three or more. The three dimensions proposed in the study of Miller (1983) are: Innovative, pro-active, and risk taking. First these three are expressed by Miller and Friesen (1983) as part of their "eleven entrepreneurial dimensions of strategy".

Calabro et al. (2016) defined Entrepreneurial orientation in internationalization context as "a set of behaviors associated with the potential creation of value, which manifest themselves as proactive and innovative methods, risk-taking activity, autonomous actions, and an emphasis on outperforming rivals, all variously aimed at discovering, enacting, evaluating, and exploiting opportunities across national borders".

Lumpkin and Dess (1996) argued that two more dimensions need to be added to complete entrepreneurial orientation to beat competitors, in addition to those recommended by Miller (1983), those additional dimensions are "competitive aggressiveness" and

“autonomy”. Competitive aggressiveness is a firm’s intensity to outperform its competitors with aggressive responses to competitive threats. Autonomy is independently taking actions by entrepreneurs and leaders to bring about new ventures and make their completion. However, researchers have not used these two additional dimensions extensively. Therefore, this study uses Miller’s construct of entrepreneurial orientation represented by three dimensions “innovativeness”, “pro-activeness” and “risk taking”.

Miller (1983) has been supported by many researchers and claimed that entrepreneurial orientation is a multi-dimensional construct represented by innovative, pro-active and risk-taking dimensions. Therefore, further studies (Covin and Slevin, 1989, 1990, 1991; Wiklund, 1999; Knight, 1997; Miller, 1983; Namen and Slevin, 1993; Zahra and Covin, 1995; Zahra, 1993) analyzed the entrepreneurial orientation and their claims can be summarized as “entrepreneurial orientation involves a willingness to innovate to rejuvenate market offerings, take risks to try out new and uncertain products, services, and markets, and be more proactive towards new marketplace opportunities than their competitors”.

## **Dimensions of Entrepreneurial Orientation**

### ***Innovativeness***

Innovativeness is tendency of a firm in engaging and supporting of new ideas, novelty, experimenting, and creation of new products, services, and technologies (Lumpkin and Dess, 1996). Lisboa et al. (2011) referred innovativeness as a predisposition of supporting innovations and favoring changes (1276). According to Lumpkin and Dess (2001), innovativeness is “willingness to support creativity and experimentation in introducing new products/services, and novelty, technological leadership and R&D in developing new processes”.

As per the study of (Soininen et al., 2011) innovativeness represents basically willingness of departing from prevailing technology, practices, and venturing outside the present state of art. It is a significant constituent of EO, firms achieve new opportunities using this as an important mean.

Innovativeness in a firm takes place through many forms, in broader sense, occurrence of innovativeness may be through continuation in simply willingness of trying a new product line or experimenting new way of advertising to passionately mastering advanced technologies in products (Lumpkin and Dess, 1996). While, Knight (1997) Innovative firms follow creative ways in solving challenges before them, may include developing new products or enhancing of prevailing products.

Saad (2014) argued that introduction of innovativeness in a firm's entrepreneurial process is like "creative destruction", existing market structure and processes are disturbed to create wealth, by introducing new products and services, sometimes shifting away resources into growth of new ventures and firms. Covin and Miles (1999) argued that existence of firms is not possible without innovativeness.

### ***Pro-activeness***

Proactiveness is an entrepreneur's readiness for dominating competitors by moving aggressively and proactively e.g., taking lead in introducing a new product or service ahead of competitors, anticipating future demand for creating, changing and shaping of environment (Keh et al., 2007, p.595).

Pro-activeness is the perspective of seeking opportunities, forward looking, featured taking actions ahead of others (Soininen, 2011). This type of entrepreneurial behavior has been referred as "strategic agility" by (Bullinger, 1999), and is considered close to "dynamic capabilities" of Teece's (2007).

According to Venkatraman (1989) pro-activeness is the "process of anticipating and acting on future needs by the firm's seeking new opportunities that may or may not be related to its present line of operations, by introducing new products or brands ahead of competition, and by strategically eliminating operations that are in a mature or declining life cycle stage". Covin and Slevin (1989) added that in order to compete with other competitive firms' entrepreneurs initiate uncompromising actions.



In addition, Zahra & Dess (2001) claimed proactiveness is a firm ability attribute for recognizing and pursuing market opportunities ahead of its competitive firms irrespective of limited resources.

Lumpkin and Dess (1996) argued that pro-activeness may act crucially to entrepreneurial orientation, because it leads to a forward-looking perspective of firms with innovations and creation of new ventures. Though, there are similarities between innovativeness and competitive aggressiveness, but distinction is highlighted as pro-activeness is the response to market opportunities in process of market entry. It is done by opportunistic behavior to “shape the environment” for creating demands. In contrast, competitive aggressiveness is how firms relate with their competitors, so firms do not create trends and demands but respond to already existing ones in markets.

### ***Risk taking***

Risk taking is the degree of managerial willingness to take uncertain decisions of resource utilization with practical chances of failures (Miller and Friesen, 1983). Lisboa et al., (2011) stated that risk taking refers to taking of projects which may have uncertain outcomes but are perceived as opportunities by entrepreneurs. According to Soinenen (2012) “risk taking describes the nature of easily venturing into the unknown, borrowing heavily, and/or committing remarkable resources to ventures in uncertain environments”.

In view of strategy, risk taking is a firm’s tendency to take chances in business management or to adopt strategies facing directly uncertainties (Richard et al., 2004). Baird and Thomson (1985) claimed three ways of strategic risk taking as “venturing into the unknown”, “heavy borrowing”, and “committing large portions of corporate assets in uncertain environments (231-232).

Lumpkin and Dess (1996) stated that all business activities are involved with risk with varying degrees, so it will be completely meaningless to assume “absolutely no risk”. Further, the range of risk taking may extend from low or nominal level referred as “low risk” such as money deposition in banks, investments in treasury bills, or refilling the shelves to “high risk” activities such as heavy barrowing, investments in unfamiliar

technologies, or introducing a new product into a new market. Also claimed entrepreneurial firms are characterized by exhibiting risk taking behavior such as increasing debts heavily or resource commitments.

Soininen (2011) studied role of entrepreneurial orientation on growth of Finish small and medium enterprises and found that entrepreneurial orientation is positively related to growth rate of the firm, also EO strongly and significantly effects a firm's growth orientation.

Jin, Jung and Jeong (2017) developed a theoretical framework by integrating international entrepreneurship into resource based approach and studied on Korean SMEs. They found that the dimensions of EO: 'pro-activeness' and 'risk taking' are antecedents of market capability, which in turn decreases scope of internationalization in these Korean firms but increases their financial performance. While as internationalization scale remains uninfluenced.

Dai et al. (2013) in their study on SMEs from 10 industries found that dimensions of EO: innovativeness and proactiveness at both low and high degrees increases international scope of firms, the two dimensions at moderate degrees reduce the firms' capacity of pursuing new foreign markets. But in case of risk taking scenario is reversed, risk taking at moderate level produces higher level of internationalization scope than low or high level.

Entrepreneurial orientation significantly influences the entrepreneur's decisions of global operations, several psychological factors back entrepreneur's capability in identifying, organizing, coordinating, and controlling of their firms when they decide for internationalization. These psychological factors help entrepreneurs in getting self-confidence to face the challenges in internationalization process of their firms (Kumar, 2012)

Zhang, Ma, and Wang (2012) used both quantitative and qualitative approaches of research to study entrepreneurial orientation and internationalization in Chinese SMEs., in their quantitative study it was found that entrepreneurial orientation plays an important role in facilitating internationalization efforts, also dimensions of entrepreneurial orientation

exert independently influence at different levels on internationalization of SMEs in China, proactiveness and risk taking positively influence degree of internationalization, whereas, innovativeness is not seen as influencing so much. Interestingly, the findings from qualitative study show context specific explanations and varied from those of quantitative study and from previous studies.

Oviatt and McDougall (1995) pointed out that an entrepreneur's abilities of realizing international market opportunities trigger a firm's internationalization, and such abilities are developed by social networking activities and relationships with foreign firms. While as Lumpkin and Dess (1996) argued that in small businesses there is concentration of managerial power as compared to large firms, so is decision making power concentrated to the entrepreneurs, therefore, entrepreneurial orientation of individual entrepreneur is considered as entrepreneurial orientation of the firm.

There is an increase in interest of researchers towards studying relationship between entrepreneurial orientation and performance (Madsen, 2007). Roux and Bengesi (2014) studied the relationship between entrepreneurial orientation dimensions and performance in Tanzanian SMEs and found a strong relationship between entrepreneurial orientation dimensions and firm's performance. while, relationship between entrepreneurial orientation and performance has been found moderate and claimed vigorous to other cultural contexts (Rauch et al., 2009).

Mason et al. (2015) conducted their study on SMEs of Italy and Austria to analyze the impact of entrepreneurial orientation on subjective performance of SMEs. Findings show that there is a positive relation between all the dimensions of entrepreneurial orientation and firm's subjective performance, also the different behaviors of subjective performance in two sample sub-sets shows how geographic locations of firms explain their subjective performance. Whereas, Runyan (2008) in their study found that in younger small business firms performance is significantly predicted by entrepreneurial orientation.

Soininen (2012) claimed in their empirical study that there exists a positive relationship between entrepreneurial orientation and rate of growth of the firm, therefore entrepreneurial has strongly and significantly effects growth orientation of a firm.

Entrepreneurial orientation has been recognized as a leading factor for firm's growth and performance (Zainol and Ayadurai, 2011). Stevenson and Jarillo (1990) found a correlation between entrepreneurial orientation and firm's growth, and claimed innovativeness, proactiveness, and risk-taking behavior which constitute entrepreneurial orientation has a connection with firm's growth. Lyon, Lumpkin and Dess (2000) claimed there are influences of entrepreneurial orientation on firm's performance. Several other studies claimed increase in entrepreneurial orientation increases the firm's financial performance (Covin and Slevin, 1989; Miller, 1983; Zahra, 1993). However, arguments have been made on entrepreneurial orientation intensity and inferences of risk taking on firm's performance have been questioned (Zahra 1993). In addition, Miller and Friesen (1983) argued limitless increase in entrepreneurship harms a firm's financial performance. entrepreneurial orientation and firm performance have been found positively related in many previous researches (Jantunen et al., 2005; Wiklund and Shepherd, 2005; Madsen, 2007). In contrast, many studies indicate non-existence of such relationships (Smart and Conant, 1994).

Kurtulmus and Warner (2015) studied role of entrepreneurial orientation on perceived financial performance of SMEs from Turkey. This study found contradictory results to the previous ones as it has been seen entrepreneurial orientation activities do not provide better financial performance or there does exist any relationship between entrepreneurial orientation and firm's financial performance. Also, Hart (1992) claimed entrepreneurial orientation decreases firm's performance but is conditional, as example, when top management and other members of firms struck in role imbalance. This contradiction of findings suggest entrepreneurial orientation cannot always make firms to perform better.

From the small business perspective, researchers have predicted a strong positive relationship between entrepreneurial orientation and firm performance, small size assists and encourages for flexibility and innovations (Wiklund, 1999). Similarly, relationship has been found positive between entrepreneurial orientation and performance of small firms in Sweden (Wiklund and Shepherd, 2005). In another study on small firms of Thailand and

Vietnam, positive correlation has been found between dimensions of entrepreneurial orientation and performance (wierczek and Ha, 2003).

#### **2.4.2. Global Mindset**

Several researchers viewed global mindset or cognitive capabilities of decision makers as an influencing factor of firm outcome (Gupta and Govindarajan, 2002; Murtha et al., 1998; Harveston et al., 2000; Jeannet, 2000; Levy, 2005). Scarborough et al. (2012) claimed that a different kind of mindset is needed for being a global entrepreneur, and to achieve success, firms need to be seen from global perspective by entrepreneurs, a global culture needs to be instilled in firms infused in all its business activities. This phenomenon is emerging in competitive markets and it is required to shift entrepreneurial focus from organizational structures and systems of administration to mindset based capabilities (Bartlett and Ghoshal, 1990).

Cognitive psychology and organizational theory are the parent fields of the concept of mindset, where interaction of people and organizations with their worlds is interpreted (Gupta and Govindarajan, 2002). Further, they defined global mindset as “a firm’s or manager’s openness to and awareness of diversity across cultures and markets with a propensity and ability to synthesize across the divides”. In another definition of Guy and Beaman (2003) defined it as “an individual’s predisposition towards a particular international approach and experience”. Another interpretation of global mindset by Rhinesmith (1995) is “a global mindset is a way of being rather than a set of skills”. While, Kefalas (1998) further expanded the view of Rhinesmith and combined two variables in the concept of global mindset as “conceptualization” and “contextualization”. Conceptualization is related with people viewing world as a one global market, and contextualization is related to local market adoption capacity of people. Further he used a matrix in which it is “*most global*” when both dimensions are scored high, and low scores on the dimensions were referred as “*least global*”. Murtha, Lenway, and Bagozzi (1998) claimed global mindset at individual level is composed of “integration”, “responsiveness” and “coordination”. According to Nummela et al. (2004) “Global mindset implies a

manager's openness to and awareness of cultural diversity, and ability to handle it and succeed in a global market.”

According to Beechler and Javidan (2007) global mindset encompasses “knowledge”, “cognitive abilities” and “psychological attributes”, responsible for fostering leaders in diversified cultures and environments involving components as intellectual, psychological, and social capital.

According to Hitt, Jvidan, and Steers (2007) global mindset is defined as “set of individual attributes that enable an individual to influence individuals, groups, and organizations from diverse social/cultural/institutional systems”. Another definition by Levy et al. (2007) mentioned in Hit et al., (2007) is as “a highly complex cognitive structure characterized by an openness to and an articulation of multiple cultural and strategic realities on both global and local levels, and the cognitive ability to mediate and integrate across this multiplicity”. According to this definition above global mindset covers three aspects as cultural, strategic, and multidimensional.

Global mindset is a world scanning ability from a broad perspective, in search of trends and opportunities consisting of both threats and further opportunities, for achieving objectives of both personal and organizational. While, Senge (1990) argued mindset is deeply entrenched assumptions, overviews, and images which influence an individual in understanding surroundings and taking of actions. Similarly, Paul (2000) claimed by learning and experience, individuals develop sets of images and assumptions which are determinantal of perception and reaction to specific events in surroundings. These above definitions indicate global mindset concept is applied to both individuals and firms. Consequently, organizational mindset is an aggregation of all member mindsets and intra-firm interactions.

World is a flatter now, competitions increasing with increasing participation of countries and firms in global markets (Friedman, 2005). He claimed that globalization first captured to countries, then companies, and now to individuals, much more than globalization is going on now, globalization is not limited to the communication between states, businesses, people and other inter-organizational interactions, new business models

are emerging from changing social and political aspects and impacts the global societies. This dynamism in world requires managers and other decision makers in organizations across the world to develop global mindset and work accordingly.

Bowen and Inkpen (2009) described global mindset through individual perspective and argued it is the composition of intellectual, psychological, and social capital, such characteristics enables three components of individual behavior regarding decisions making and actions. Thus, accordingly individuals possessing global mindset are characterized as: can receive, analyze and decode the global operations environment, identification of managerial activities effective in operations across global environments, possessing flexible behaviors and are disciplined in appropriate actions. Global mindset is the form of managerial orientation in process of firm's internationalization, and this concept has close relation with international entrepreneurship (Kyvik, 2011). Global mindset is classified into three mental modes as Ethnocentric, Polycentric, and Geocentric (Perlmutter, 1969 and Sullivan, 2002).

### ***Ethnocentric***

Ethnocentric is also referred as home country focus, firms of this orientation concentrate their predispositions on home country as only point of reference, assuming nation as superior (Guy and Beaman, 2003). Followers of this approach control operations from home country only, normally home country models and procedures are copied to foreign markets (Kedia and Mukherji, 1999). Firms do slight changes into products and services exported from home countries to foreign markets. In this approach low operating costs are generated, but risk of losing sales to competitors remains high due to low responses in local markets. In this outlook decision making is centralized and operations are controlled with high power.

### ***Polycentric***

Polycentric mindset is also referred as host country mindset, the firm's operations are managed from the point of host country reference (Kedia and Mukherji, 1999). This type

of mindset helps in increasing international operations. According to Guy and Beaman (2003) this approach works on a famous proverb “when in Rome do as Romans do”. Firms with such mindset extend operations to countries of similar characteristics in the nearest geographical region, and operations are managed as per host country standards (Kedia and Mukerji, 1999). Further they stated that the strategies adopted are multinational strategies emphasizing decentralization with autonomy in operations globally. Local market responsiveness is important than operational costs (Saad, 2014).

### ***Geocentric***

This is the pure global mindset of firms. Firms of this mindset consider combination of universal values governing the human interactions worldwide (Guy and Beamen, 2003). In this approach a global network is created, and a transnational strategy is adopted featured as integrative and interdependent. This is the most successful approach, which reduces cultural myopia and increases local responsiveness (Saad, 2014). In geocentric mindset the entire world is seen as one market, preferences of people are considered common irrespective of their cultural diversities, and firms adopt strategies which best suits their operations globally. This mindset best suits the much integrated and globalized atmosphere, where it is easy to treat whole globe as one market. Many researchers have viewed that global mindset is requirement of internationalization of a firm (Fletcher, 2000; Harveston et al., 2000; Harveston et al., 2002; Knight, 2001; Townsend and Cairns, 2003).

Felicio et al. (2014) in their study divided Global mindset of a firm into two portions corporate global mindset (CGM) and Individual global mindset (IGM). In case of effect on internationalization observed that CGM is not directly associated with intrinsic features of firm, but in contrast to activities related to international networks, firms use available resources for establishing and maintaining contacts with suppliers. In a similar study conducted by Felicio et al. (2015) studied how individual global mindset and corporate global mindset are related to internationalization behavior of SMEs using qualitative analysis on firms from Portugal. They found that individual global mindset and corporate global mindset do not affect internationalization separately, but through



combinations of both, activities of international networks and international know-how are also led by these combinations. Felicio et al. (2016) further extended the study to Portuguese, Norwegian, and Lithuanian small firms. In this study they found that in Norwegian small firms are strongly influenced by individual global mindset of managers, though corporate global mindset and individual global mindset are closely related, but internationalization activities are not affected directly by corporate global mindset. In Lithuanian firms, internationalization is influenced by individual global mindset moderately at partial level, and corporate global mindset strongly influences the internationalization activities of the firms. In case of Portuguese firms, internationalization is influenced by both individual and corporate global mindset through participating in international networks, exploration of resources and establishing contacts with suppliers.

Miocevic and Karanovic (2012) developed a conceptual model from literature and studied global mindset as a driver of internationalization in Croatian SMEs. The study found that global mindset and export performance have direct, positive, and significant relationship. Further, claimed that international experience does not significantly moderates the relationship between global mindset and export performance in Croatian SMEs. Kyvik et al. (2013) conducted a cross sectional study and using structural equation modeling on small firms of Portugal and Norway. The study found that there exists a strong and causal relationship between global mindset and internationalization, results conclude that main drivers of a firm's internationalization operates through global mindset. Also, the results reveal that global mindset is formed by decision makers work experience and personal characteristics.

Fernandez-Ortiz and Lombardo (2009) studied role of demographic managerial characteristics and international diversification in Spanish small firms. The study has found that age and international diversification are negatively related to each other, young managers of firms take risks and invest in foreign markets. There has been found no relationship between management teams educational or professional qualification and international diversification. While, in case of professional experience and language level a positive relationship has been found with international diversification. Kyvik (2011) in

their study after extensive literature review found that a strong causal relationship exists between global mindset and internationalization behavior of small firms, global mindset is playing role in the effect of other factors too, and international experience plays an important role in formation of global mindset.

Nummela et al., (2004) conducted a study on role of global mindset in internationalization of SMEs, they developed a framework from literature before empirical testing on information and communication technology small firms of Finland. Results reveal that global mindset is driven by experience of managers and market characteristics, and global mindset is the main parameter of international performance. Omri and Becuwe (2014) studied effects of managerial characteristics on innovative behavior of SMEs in process of their international expansions. The model and the hypotheses have been empirically tested on Tunisian SMEs from multiple industries. The study found that managers 'personal traits', 'mental ability', and 'social networks' impacts directly on behavior of firms entering international arena. Findings have also shown that Islamic ethics of managers help them in developing innovative ideas in domestic as well as foreign markets.

According to Paul (2000) for firms operating at international scale, development of global mindset in managers is now a tough challenge. This global mindset is a determinant for encouraging and valuing global cultural diversity with a degree of strategic cohesion. To grow and succeed in competitive foreign markets firms require to develop global corporate mindset in their managers so they can lead firms as global managers.

Quinn and Alexander (2006) used case based approach to study the role of management characteristics in internationalization of SMEs in retail sector. The findings confirm a key role of owners and managers in internationalization decision making of their firms. Further the study found that manager's objective characteristics like networking abilities, international experience and business skills significantly influence to expansion motives, processes, and strategies of foreign business development. The subjective qualities like positive attitudes of managers towards international expansion along with entrepreneurs involved with risks plays a significant role. In addition, Oviatt and

McDougall (1995) claimed that those new ventures where management is having global vision possess ability of quick and successful internationalization.

### **2.4.3. Network Relationships**

Many studies emphasize on significance of network relationships on internationalization behavior of firms (Ojala, 2008). Network relationships provide assistance to firms in accessing to resources, improvement in strategies, transaction cost control, improving skills, and coping positively with fast technological changes (Alvarez and Barney, 2001; Hitt and Ireland, 2000; Das and Teng, 1998). In line with this McDougall et al. (1994) claimed that networks are of great assistance to entrepreneurs of international new ventures or new global startups, in identifying opportunities in international business, and influences their country selection. Similarly, Wincent (2005) stated that performance of firms is improved when they involve in networks of other firms.

Many researchers claimed that network relationships have impacts on SMEs in selection of their market and mode of entry (Coviello and Martin, 1999; Coviello and Munro, 1995, 1997; Moen et al., 2004; Zain and Ng, 2006). These studies also found that network relationships of a firm are key motivators of its internationalization process, as a firm follows its networks outside domestic markets. In addition, Johanson and Mattsson (1988) made assumptions of their internationalization model that network relationships work as a bridge and facilitates firms in international markets.

Networks are defined by Axelsson and Easton (1992) as “sets of two or more connected exchange relationships”. They depict markets as systems of social and industrial relationships among its stakeholders like customers, suppliers, competitors, family, and friends. Zain and Ng (2006) defined networks in context of internationalization as “a firm’s management team and employees’ relation with customers, suppliers, competitors, government authorities, bankers, families, friends, or any other party that enables a firm to internationalize its business activities”. According to Johanson and Mattsson (1988) business networks are relationships firms develop with several actors in markets like customers, distributors, suppliers, competitors, non-profit organizations, governments and

many more. They further claimed that with internationalization of the firm these relationships get strong and increase in number between the parts of business networks.

Chetty and Holm (2000) studied business networks through social exchange theory and used the definition of Emerson (1981) as “set of two or more connected business relationships, in which each exchange relation is between business firms that are conceptualized as collective actors”.

In literature, the term “networks” have been used in many ways, representing connections among actors, these actors can be both individuals and organizations (Coviello and Cox, 2006). While Ellis (2008) observed that most of the research regarding networks and internationalization has focused mainly inter organizational interactions, and the relationships of individual entrepreneurs have not got due attention. However, individual entrepreneurs recognize opportunities rather than organizations as whole, so, importance must be given to individual relationships as well (Chetty and Holm, 2000; Elilis, 2008).

Saad (2014) after assessment of other definitions defined network relationships in context of internationalization as “a firm’s management team and employees’ relations with formal, informal and intermediary networks that enables a firm to internationalize its business activities”.

Researchers have classified these diverse network relationships into two categories as formal and informal relationships (Coviello and Martin, 1999; Coviello and Munro, 1995, 1997; Harris and Wheeler, 2005; Rialp et al., 2005; Westphal et al., 2006) and further some researchers added intermediary networks as another category (Chetty et al., 2000; Ellis and Pecotich, 2001; Havila et al., 2004; Oviatt and McDougall, 2005). Formal relationships refer to existing relationships between individual business partners or between multiple actors in a business network, informal relationships are the relationships of individuals of an organization with their family members and friends (Coviello, 2006; Coviello and Martin, 1999; Coviello and Munro, 1995, 1997; Harris and Wheeler, 2005; Westphal, et al., 2006). However, it is claimed that formal relationships are rooted into social ties and are social in nature, exchange of products and services takes place through monetary or barter means (Adler and Kwan, 2002). Interestingly, there are no clear

boundaries between formal and informal relationships. In line with this Larson and Starr (1993) argued informal ties may turn formal and vice versa. While as intermediary relationships are those with third parties who facilitates in establishing the network relationships between buyers and sellers like export promotion organizations and brokers etc. (Ellis and Pecotich, 2001; Havila et al., 2004; Oviatt and McDougall, 2005). In case of international business sometimes intermediaries represent exporters in foreign markets like sales subsidiaries and other agents, thus, network relationships are of triadic nature in international business (Havila et al. 2004).

Johanson and Mattsson (1988) in their network model of internationalization stated that firms establish and maintain relationships with other business counterparts in foreign market by international expansions. These relationships are created first by international expansions: establishing relationships with counterparts in new markets, second by penetration: increasing commitments in already created foreign networks, and by international integration: integrating positions into foreign market networks. Networking helps firms in gaining access to resources and other markets, further network model assumes network positions of a firm help in obtaining resources controlled by other firms. Chetty and Holm (2000) applied Johanson and Mattsson's (1988) model to study how networks help in internationalization of firms in New Zealand. They supported the claim that firms are being assisted by networks in exposing themselves to new opportunities, in obtaining knowledge, experiential learning, and draw synergic benefits from pooled resources.

Zain and Ng (2006) using case based approach examined the how network relationships facilitate internationalization process of small and medium enterprises in Malaysia. The findings from the cases of four IT firms show that network relationships activate and motivates them for internationalization, influences their market selecting decisions and entry mode decisions, helps them in gaining credibility at initial stages, assisting in accessing additional relationships and existing channels, helps in reduction of cost and risk, and speed and patterns of internationalization are influenced.

Coviello and Munro (1997) used case approach to study the influences of networks on the process of internationalization in small firms from software industry. They found that both formal and non-formal network relationships drive and facilitate internationalization process of these firms, these relationships further not only influence market selection and entry modes but product development and market diversification are also influenced.

Harris and Wheeler (2005) studied the role of inter-personal relationships of entrepreneur on internationalization process. Using the case study approach found that functions of entrepreneur's interpersonal relationships on internationalization are deep than indicated by past studies. These interpersonal relationships can not only help in providing information and providing access to networks but can direct strategies and transform firms. These relationships are wide and span to personal, social and business situations.

Ibeh and Kasem (2011) while employing case study approach to study internationalization of software firms in Syria concluded that firms proactively pursue opportunities in foreign markets through already established or newly created relationships. These relationships also influence their decisions of entering into markets and speed of internationalization. Importance of both the types of networks social and business have been found, but at the initial stage social relationships influence more than business relationships.

Manolova et al. (2010) while studying internationalization of entrepreneurial ventures in Bulgarian firms found that internationalization is being affected positively by personal networks in domestic markets. In addition to this found that inter firm networks are negatively moderated by firm's age. Early collaboration of new ventures into inter firm networks will increase its extent of internationalization.

Meng et al. (2016) in their study on how social capital effects internationalization of Chinese SMEs. The study found that there is a positive connection between inter firm networks and speed of internationalization. Also, personal networks and relationships with financial institutions have positive influence on internationalization performance of the firms. However, Kontinen and Ojala (2011) studied how network ties help in recognizing

international opportunities in family firms and argued that newly created network ties particularly through international trade exhibitions play a crucial role, whereas, family ties have a minimal role in this. Therefore, claim was grounded that existing networks do not help family SMEs in recognizing their international opportunities.

Oparaocha (2015) examined the role of institutional networks on SMEs in context of international entrepreneurship. Swedish and Finish SMEs were investigated by using case based approach. The findings lead to suggestions that internationalization process of SMEs is being positively influenced by institutional networks. Entrepreneurs are being influenced by institutional networks in areas of market information, financial support, business contacts, and partner searches. Florin et al. (2003) claims that networks allow their members to access social resources entrenched in networks; networking provides means to small business owners to avail the required resources available outside their firms.

Watson (2007) found networks have significant and positive association with firm's survival and to a lesser degree to growth. Networks are important for small firm owners to provide critical information for accomplishment of ventures. But association between networks and return on equity (ROE) or profitability is not found significant and positive.

Kenny and Fahy (2011) in their study found that strong networking ties of Irish telecom SMEs influence their international performance, coordination of networks are significantly and positively associated with their international performance. Similarly, Meng et al. (2016) found in Chinese SMEs that personal networks and relationships with financial institutions has a positive relationship with their international performance. However, Musteen et al. (2010) in their study on Czech SMEs observed that networks with geographic diversification are contributors in their superior performance, and relying extensively on personal networks becomes hindrance in performance of first international ventures.

#### **2.4.4. Human Capital**

Schultz (1961) in his published article argued that knowledge and skills are the forms of capital, and human capital is a combination of knowledge, skills, and other abilities associated with an individual. Becker (1964) further advanced and published human capital theory in his book. He claimed that capital is not only constituted by physical assets. In the era of intellectual capital several studies have taken human capital as subject of focus (Korsakiene and Tvaronaviciene, 2012). Yusoff et al., (2004) has defined human capital as a form of intellectual capital, which is the combination of different attributes as knowledge, skills, attitudes, mental relationships, and individual actions. It was Schultz (1961) who first stated that human capital is formed by knowledge and skills of employee and education plays a role in shaping an individual. Further Mincer (1962) argued that work experience leads to skill development. While, Becker (1993) pointed that most important investments in human capital are education and training of employees.

Stewart (1998) studied human capital in context of intellectual capital and concluded talent, skills, abilities, and ideas form human capital. While, Edvinsson and Malone (1998) claimed in addition to knowledge, skills, and experience human capital also consists of factors like creativity and innovation. Further, Bontis (1999) added factors as: genetic inheritance, education, expertise, and employee attitude as the constituents of human capital. Burt (1992) referred it as the range of valuable skills and knowledge a person has accumulated over time. while, Roos (1998) stated the main components of human capital are knowledge, skills and experience of employees, also supported by (Coleman, 1988; Becker, 1993). It is based on individual abilities, knowledge, know how, talent, education, skills and experience of employees in the firm (Bontis, Chua, and Richardson, 2000). Some authors have omitted 'knowledge' as the component and used 'education' instead of it (e.g Boxall and Steeneveld, 1999; Rouch et al., 2005). Ashton and Green (1996) studied it in a broader sense and concluded human capital is related to organization's human resource's education, training, qualifications, experience and technical abilities. Human capital refers to a set of characteristics that provide individuals with more skills, namely cognition, experience, and knowledge, which makes them more productive, provide a higher potential



for efficiency and enhance the development of activities (Becker, 1964; Mincer, 1974). Individuals possess knowledge and skills as constituents of human capital, acquired through education, training, and experience (Bruderl et al., 1992; Gimeno et al., 1997).

Ruzzier et al. (2007) studied the role of human capital and its dimensions on internationalization of Slovenian SMEs. The study found that there exists positive relationship between entrepreneur's human capital and internationalization of the firm, in analysis of dimensions of human capital separately international business skills and management know-how have no positive relationship with internationalization.

Cerrato and Piva (2012) in their study on Italian manufacturing SMEs found that levels of human capital along with foreign shareholders present in SMEs has positive influence on their internationalization. In addition, Goxe (2010) found in Chinese SMEs that human capital of entrepreneurs in combination of two or more components has positive relationship with their internationalization. Also found that international orientation and management know-how influences risk perception of entrepreneurs which recognizes social capital for internationalization.

Lafuente and Rabetino (2011) studied impact of human capital variables on growth of small firms in Romania and found that "human capital matters for explaining small firm's employment growth". Further concluded that active involvement of entrepreneur's in management activities surges their intensity of using human capital further. In line with this, Galabova and Mckie (2013) in their study on firms of Scotland, Finland, and Bulgaria claimed that for managers of SMEs human capital and its components are the resources available in abundance widening scope for personal and firm competitive advantage.

Onkelinx et al. (2016) developed and tested a model to explore the effects of human capital on SMEs productivity and subsequently the effects of SMEs productivity on degree of internationalization on firms. Results suggests that for rapid internationalization of firms need to develop their human capital with education and trainings, but in case of slow internationalization education and trainings are not necessary for developing human resources. Previously in a similar study by these authors in (2015) on SMEs of Belgium,

concluded that accumulated human capital represented by education level and employees experience, is not associated with internationalization in gradually internationalizing firms. However, in case of strategically accelerated internationalizing firms there is a positive association between investing in human capital and internationalization or export intensity.

Javalgi and Todd (2011) in their study on Indian SMEs found that there is a positive relationship between human capital and degree of internationalization in Indian SMEs. Education level and international experience as dimensions of human capital are predicting the internationalization of firms. Ruzzier et al. (2013) in their study of human capital and internationalization of Slovenian SMEs found that human capital has direct and positive relationship with degree of internationalization. Study has also conceptualized human capital of an entrepreneur into four dimensions as “international orientation, management know-how, risk perception, and international business skills”. In addition, direct effects were observed between individual dimensions of human capital and internationalization. International orientation and risk perception dimensions of human capital are predicting internationalization, while as, international business skills and management know-how are not predicting it.

Teo et al. (2011) in their study on how human capital enhances human resource systems and frontline employees of SMEs in manufacturing sector of Australia. Results found that human capital enhancements and human resource management systems impacts directly and indirectly to the performance outcomes of manufacturing SMEs. And further, performance of frontline employees mediates the impacts of human capital enhancing and human resource management systems and performance outcomes of manufacturing SMEs. In another study by Fatoki (2011) on South African SMEs found that human capital along with other two social capital and financial capital are positively related to their performance.

Akuetteh et al. (2012) studied the role of human capital and business owner experience on export intensity in the small firms of Ghana and found that there is a link between human capital profile of entrepreneurs and export intensity. Human capital of

entrepreneurs as “business ownership experience” and “technical capabilities” are main driving forces for superior export performances.

Unger et al. (2011) used meta-analysis and integrated results of studies on human capital from three decades. Overall results found small but significant relationship exists between human capital and success. This relationship has been found higher for knowledge and skills which are outcomes of investments into human capital, than education and experience which are investments into human capital.

According to Vidotto et al. (2017) business organizations needs to be vigilant and dynamic in using their resources efficiently, especially those assets which constitute intellectual capital, so that positive results can be achieved in long run. Human capital is pivotal constituent of intellectual capital and is formed by ‘knowledge’, ‘skills’, ‘experience’ and ‘capabilities’ (Mention and Bontis, 2013). Durrani and Forbes (2003) further strengthened the claim by stating that there is a connection between organization’s success and their investments in human capital. Human capital has become prominent in knowledge economy, knowledge is being considered a major factor for development, individuals with good education and qualifications are becoming driving force for this. Because of unique features of individuals, it is difficult to imitate human capital, and attains strategic importance in organizations to be at frontline, therefore organizations must develop and maintain human capital (Ndinguri et al. 2012). Krasniqi and Mustafa (2016) draw a model from previous theories of firm growth and empirically tested on SMEs from Kosova. The study found that characteristics of human capital which significantly explain the firm’s growth are training of entrepreneurs and employees. There has been seen no influence of education of entrepreneur and managers on firm’s growth. However, education of employees is negatively influencing firm growth.

Muda and Rahman (2016) studied human capital in perspective of life cycle in SMEs and concluded that direct and indirect role of human capital in improvement of SMEs performance cannot be denied. Resource constrains of SMEs makes a challenge for them in competition with large counterparts, so, SMEs has to rely on individuals with different attributes of human capital as “education, experience, motivation, talents, and

skills” to achieve performance. Further, concluded that human capital is capable to transfer information into knowledge, thus indicating firm’s investments are mainly rooted through human capital, therefore, human capital works for SMEs in value creation and performance superiority.

#### **2.4.5. Government Support**

Government supportive programmes are external changing agents to the corporate sector for successfully expanding businesses and stimulates business activities of domestic firms for further expansions (Cavusgil and Czinkota, 1990; Czinkota and Ronkainen, 2007; Seringhaus and Rosson, 1990). Logically the way government can make influences on SMEs is by directly supporting through policies and programmes of assistance to overcome their disadvantage of small size (Smallbone and Welter, 2001). Governments support through programmes of general financing and by treating entrepreneurial ventures preferably (Spencer and Gomez, 2004), making resource availability by governmental programs (Doutriaux, 1998), assistance in developing businesses (Phillips, 1993) and government’s assistant programs for exports (Reynolds, 1997) assists people in their entrepreneurial activities. Abdullah (1999) divided government assistance programmes in Malaysia into five categories of “financial credit assistance, technical and training assistance, extension and advisory services, marketing and market research, and support in developing infrastructure”. Government support to entrepreneurs is defined by Saad (2014) as “funding policies and incentives, contracts and projects in terms of financial and credit assistance, technical and training assistance, extension and advisory services, marketing and market research, and infrastructure supports that can assist individual entrepreneurial efforts”.

Economic development of a country and governments promotional programmes are related to development of SMEs. These SMEs diversify through “employment and output share, output composition, market orientation, and location” (Tambunan, 2008). Some studies have shown that SMEs have increased their role and commitment to restructure societies through economic improvements in its larger sections (Smallbone and Welter, 2001). Thus, to make best use of this sector by capturing these social and economic

benefits, governments started supporting SMEs in their respective countries (Wren and Storey, 2002). In line with this, studies of Ahmad (2008) and Ahmad and Kitchen (2008) found that Malaysian firms are competitively ahead with advantages in terms of “technological skills” and “knowledge capabilities” with a committed government support for their expansion. However, Spencer and Gomez (2004) claimed that government policies impact entrepreneurial success, while Acs et al. (2001) claimed SMEs path is highly influenced by the policies of the government.

He (2011) in a study on factors influencing internationalization of SMEs in footwear industry of Wenzhou China found that government support measures like “direct financing” and “infrastructure building” by both local Wenzhou and Chinese central government are critically influencing the internationalization process of these SMEs engaged with production of footwear.

Durmusoglu et al. (2012) studied effects of government designed export promotion services (EPS) on goal achievements of Turkish SMEs and found that EPS has improved all the dimensions of export performance in SMEs as “financial, stakeholder relationships, strategic, and organizational learning goal achievements”. The study further describes that performance is affected by specific export promotion services like promotion service of “information materials” influences the “stakeholder relationship goal achievements”.

Gencturk and Kotabe (2001) developed a model based on previous literature to study empirically integrative effect of export market involvement and usage of governments export promotions assistive programs on export performance. Their findings indicated that “export marketing involvement of firms and firm’s usage of government export assistance programs are important export success factors, but, the relevance of export assistance programs and the role they play vary depending on the dimension of export performance being considered”. Yusuf (1995) claimed government’s support contributes in success of south pacific small firms. Governmental support in developing countries is mainly in areas of building infrastructure and working for incentives.

Freixanet (2012) studied the impact of export promotion programs on internationalization performance and competitiveness of exporting firms of Spain. It was

observed that “program use” and “export diversification” are positively related but is not significantly correlated with economic performance. It was further observed that there are variations in the impacts depending on firm’s stage of internationalization and the type of export promotion program, like for ‘starting exporters’ “trade missions and trade sponsored trade shows” influences them positively in improving product marketing, achieving agreements of cooperation, and drawing plans for internationalization. while, Francis and Dodd (2004) conducted a study to examine the impact of export promotion programs on competency, strategy, and performance of high-tech SMEs of Canada. The study found that “achievement of export objectives” and “export expansion strategies” are highly influenced by using government’s export promotion programs, and “export marketing competencies” are enhanced by these programs. However, it is claimed further these export programs have higher impact on firms at their starting stage of exporting and have less contribution to non-exporting and experienced exporter firms.

Kang and Park (2012) conducted a study on influences of government’s research and development support on innovations of Biotech SMEs in South Korea. Significant association was found between collaborations and partnerships with innovative output of these firms. Governments supportive programs like “project funding” has both direct and indirect effects on firm’s innovations. It stimulates internally firms in their research and development and helps in collaborating domestically both upwards and downwards.

Shamsuddoha et al. (2009) studied about how government assistance impacts internationalization of SMEs in Bangladesh found that the process of SMEs internationalization is significantly influenced by government assistance programs. These programs contribute factors related to both firms and managers in determining performance in international markets. Government assistance programs related to market development have considerable influence on internationalization both directly and indirectly. However, programs related to finance and guarantee effects only indirectly. Interestingly, an important argument was made by Idris (2012) that government support in excess will make entrepreneurs handicap to solely dependence on external assistance, which indirectly will

turn firms unproductive and will lead to absence of encouragement for further business development.

In contrast, Moini (1998) studied effectiveness of government's assistance programs for exporters in small business firms of Wisconsin. They found that these programs vary in effects and awareness from firm to firm, these variations are found according to extent of firm's internationalization. In addition, characteristics of both firms and decision makers are influencing on effectiveness of government assistance programs. Further, study suggests designing such programs with clarity in target audience will make it more effective.

Mahajar (2005) in his study investigated the effects of export assistance programs provided by government agencies on SMEs of Malaysia. This study has got some interesting findings, as in general, awareness level about these programs in SMEs is low, perception up to an extent in SMEs that these programs don't help much, SMEs use these programs only to a certain level. However, findings also show that many SMEs benefited from these assistance programs in increasing exports, in entering foreign markets, increase in production and profits, improvements in growth and products, international networks, and export processes. In another similar study conducted by Abdullah (1999) in Malaysian context found that Malaysian government has started many supportive programs for development of SMEs categorized as "financial and credit assistance, technical and training assistance, extension and advisory services, marketing and market research, and infrastructure support". This study has found that government assistance is not received by most of the SMEs, those firms which have received any kind of assistance, diversity prevails in their usage like some firms used only one kind of assistance and others used more than one types. The reason for this variety is found limited accessibility to these assistance programs.

In another study in the same context by Hashim (2012) claimed Malaysia government has taken many initiatives in support of their SMEs to be competitive in both domestic and international markets. Though, these SMEs have drawn benefits mostly from "soft loans" and other financial grants, Malaysian SMEs are struggling in global markets

in areas of market knowledge, technological capabilities and skill development, and more importantly in maintaining quality of products.

Acs et al. (2001) examined the impact of government policies influencing internationalization process of SMEs, with focus on specific institutions for assisting internationalization. They argue that such institutions focus only financing and insurance of risks related to export activities, which becomes hindrance in long term interest of SMEs, as managers prefer exporting directly instead of indirectly by entering value chains of already established MNEs. Consequently, SMEs are diverged from their comparative advantage of 'innovation'. Further argued highly innovative SMEs are richer as they leave internationalization of their innovations to these already established MNEs and share profits with them.

## **2.5. Firm Performance**

Firm performance also known as organizational performance is the extent up to which an organization or a firm is able to meet the needs of its stake holders and its own survival needs (Vij & Farooq, 2014). As per Aluko (2003) organizational performance is the ability of an organization to meet expectations of owners, employees and customers. While, According to Akroush and Mohammad (2010) claimed the construct of organizational performance comprises three measures market, customer, and financial measures. Numerous factors influencing organizational performance are combined in unique ways to both increase and detract performance (Ramayah, Lee, and In, 2011).

Traditionally profitability which is often regarded as return on investment was considered sole approach to performance assessment. However, academicians and researchers questioned the validity of profitability as the only indicator of business performance. A major objection to this procedure is that short- term profits can be enhanced at expense of long term growth (Kroeger, 2007). Venkatraman and Ramanujam (1986) and Murphy, Trailer, and Hill (1996) claimed multi-dimensionality of organizational performance construct. Further, Combs, Crook, and Shook (2005) and Davidsson, Steffens, and Fitzsimmons (2009) supported this claim. Venkatraman and Ramanujam (1986)



observed that firm performance contains multiple and disparate measures of performance, and firm performance can be described in categories of financial performance, business performance, and organizational effectiveness. Defined Financial performance as “an accounting-based measurement that measures profitability of the firm through financial ratios such as return on assets (ROA), return on sales (ROS), and return on equity (ROE)”. Business performance is defined as “it refers to market or value-based measures which consist of financial and operational (non-financial) performance and is measured through indicators such as market share, growth, diversification, and product development.” While organizational effectiveness is referred as “stakeholder-based measurements with indicators such as employee satisfaction, quality and social responsibility”. However, Hart (1992) classified business performance into two parts, the first part is entirely related to business growth like growth in sales and market share. The second part consists of future prospectus of firms like diversifications and product developments.

According to Vij and Farooq (2014) due to complexity and multi-dimensional nature of business performance construct organizational assessment of performance can be done using two types of outcomes tangibles as profitability, market share, growth of employees, and product quality. The intangible outcomes include customer satisfaction, employee satisfaction, and product development. Further these measures can be objective like absolute values from financial statements or can be perceived or subjective, due to unavailability of financial data use of perceived measures has become a widespread practice. In empirical research there are challenges in obtaining financial data accurately due to its sensitive nature (Rhodes et al., 2008; Rasula et al., 2012). In addition to this, subjective and objective measures are highly correlated to each other (Dess and Robinson, 1984).

The study of Lu and Beamish (2001) is considered as a pioneering one in literature, this study has analyzed the impact of three types of internationalization strategies: exports, FDI, and Alliances, on firm performance. The study has used sample from Japanese SMEs and found that impact of exporting on a firm’s performance is not the same as impact of FDI, exports are negatively and linearly related to performance. However, the relationship

of FDI is non-linear with performance, profitability is declined in the beginning of FDI, but with increase in the FDI levels firm's performance is increased. Further, it claimed that aligning with the partners from local markets helps effectively to overcome barriers. The above study was extended again by Lu and Beamish (2006) to examine the effects of internationalization strategies exporting and FDI on performance using dimensions growth and return on sales (ROS). The study found that exporting impacts positively to the growth of firm, but negatively to its profitability. FDI is positively related to firm's growth but is related to profitability in a 'U' curved shape. Exporting positively moderates the relationship of FDI and growth of a firm, and negatively moderates the relationship between FDI and profitability of a firm. Hitt and Baratkus (1997) also observed a non-linear relationship between internationalization and performance of a firm.

Pangarkar (2008) studied internationalization and performance of Singaporean SMEs and found that higher degree of internationalization in SMEs results in their better performance, and those internationalized SMEs perform better which invest in attractive markets. Further suggested that resource constrained SMEs should internationalize to leverage the benefits which are overshadow to its costs. Another study by Chiao, Yang, and Yu (2006) on internationalization and performance in SMEs of Taiwan as a newly industrialized economy found that the relationship between internationalization and performance is graphically shown as inverted U-shaped curve, means internationalization up to a specific level yields maximum profitability.

Bausch and Krist (2007) has analyzed prior studies using meta-analysis to get a clear picture of relationships of internationalization and performance. At the end of this analysis they found statistically significant correlation, but the magnitude of this correlation is low, and this relationship of internationalization and performance depends on the context. "Further, R&D intensity, product diversification, country of origin, firm's age and size" moderate this relationship between internationalization and performance. Westhead et al. (2001) in their study found that though SMEs are limited in their financial and human resources, expansions in international markets improves their performance.

Hagen et al. (2011) in their study of Italian international SMEs and performance, grouped these firms into four groups depending on their international strategy. They confirmed that the type of international strategy adopted by a firm is positively related to its international performance. Three types of international SMEs: customer oriented, entrepreneurial oriented, and product-inward oriented are very active in pursuing opportunities internationally, have rapid expansions, and perform superiorly in comparison to those firms without any international strategy.

Zhou et al. (2007) conducted a study on the performance of inward and outward internationalization of Chinese born global SMEs and concluded that outward internationalization has direct effects on sales growth of the firm, and performance of their export growth and profitability is mediated by social networks. However, in case of inward internationalization only performance of export growth is mediated by these social networks.

### **2.5.1. Financial Performance**

In previous studies performance of internationalization has been studied from both financial and non-financial perspectives. According to Venkatraman and Ramanujam (1986) Financial performance is an “an accounting-based measurement that measures profitability of the firm through financial ratios such as return on assets (ROA), return on sales (ROS), and return on equity (ROE)”. Although, indicators of financial performance are commonly used, but the results of internationalization performance relationship have been found mixed. Bloodgood, Spienza, and Almedia (1996) in their study found that the relationship between degree of internationalization and firm’s income is significantly positive. However, there was not found any relationship between internationalization and firm’s return on investment (ROI) by McDougall and Oviatt (1996). While, Knight and Kavusgil (2004) observed that entrepreneurial orientation towards internationalization influences the firm strategies leading to their higher performance.

Researchers have criticized financial performance measures widely used in business research. Chakravarthy (1986) highlighted few weak points in relation to “the

scope for accounting manipulation, the undervaluation of assets, the distortions due to depreciation policies, inventory valuation and treatment of certain revenue and expenditure items, the differences in methods of consolidating accounts, and the difference due to lack of standardization in international accounting conventions”. Further claim is made that measures of financial performance both profitability measures like ROA, ROS, and measures related to financial markets are unsatisfactory discriminants of excellence.

Effect of financial status of a firm on its internationalization has been examined by many researchers and concluded that organization’s previous performance creates further resources for international expansions (Zahra and George, 2002). In another study by Zahra et al. (2000a) did not found any significant association between previous return on equity (ROE) and internationalization, in respect of their financial leverage. While, bloodgood et al. (1996) also found it non-significantly associated with degree of internationalization. However, the relationship between firm’s income and internationalization has been found significant. Moreover, a study by McDougall and Oviatt (1996) using sample of new venture manufacturers from IT industry of U.S.A. found an association between “higher levels of internationalization” and “higher relative market share”, but there has been found no directly significant relationship between “percentage of international sales” and “return on investment (ROI)”. Further, they claimed higher costs of internationalization, questioning the contributions of previous financial performance to internationalization of new venture.

In SMEs perspective, Lu and Beamish (2001) found exporting is negatively related to performance of SMEs and this relationship is linear in shape, but the relationship between firms’ FDI and performance is ‘U’ shaped in terms of ROS and ROA. However, relationship between extent of internationalization and return on sales (ROS) is found as inverted ‘U’ shaped in SMEs of Taiwan by Chiao, Yang, and Yu (2004).

### **2.5.2. Non-Financial Performance**

Assessment of performance accurately and properly is a crucial determinant of firm’s success or failure. Identification of performance indicators reflecting the competitiveness

of firm is needed. As a traditional approach, indicators of financial performance like “firm revenue”, “market share”, and “return on investment (ROI)” have been widely used, encouraging managers to focus on short term gains, however, in current global competitive environments non-financial performance indicators combined with financial performance indicators provides picture of performance more clearly (Tseng et al., 2009). Many studies are in support of introducing indicators of non-financial parameters. Ma and Wang (2006) reported that development in innovations and technology is playing a vital role in enhancing competitive advantage of Chinese firms globally. Zahra et al. (2000) established a relationship of “international entrepreneurship” with “technological learning” and “knowledge acquisition”, however, Oviatt and McDougall (1995) draw connections between international orientation of firm and its market share.

According to Kogut and Zander (1992) “competitive capability is a firm’s ability to deploy resources using organizing processes and principles to achieve its strategic objectives”. While, Amit and Shoemaker (1993) described it as a firm specific process based on information, exhibiting both tangible and intangible characteristics, built over time through interactions of complex manner in between firm’s resources. But, Shi and Gregory (1998) claimed that “competitive capability as a firm’s ability to renew, augment, and adapt its core competencies over time”. Moreover, McEvily and Zaheer (1999) observed that acquiring competitive ability is an ongoing process beginning with getting knowledge and being aware about opportunities, continues with internalizing the capabilities, and ends with executing acquired abilities.

According to Carayannis and Alexander (2002) Technological learning is the “process by which a technology-driven firm creates, renews, and upgrades its latent and enacted capabilities based on its explicit and tacit stock of resources”. Technological learning as performance is recognized by firm’s capabilities, by learning, creating and applying technological knowledge (Lin, 2003). From Resource based view, technology is considered as an intangible component or a firm specific asset, and technological learning ability can become constituent of competitive advantage of a firm (Saad, 2014).

For measuring performance outcomes of internationalization Zahra and George (2002) advocated for using both financial and non-financial measures, because financial measures alone are indecisive to measure outcomes of internationalization. Saad (2014) used both financial and non-financial dimensions for measuring firm performance in Malaysian SMEs.

## **2.6. Research Hypotheses**

Hypotheses development of the study is based on comprehensive conceptual research model and the review of literature. These hypotheses focus on all the dependent, independent, and mediating variables used in the study. Specific hypotheses have been drawn to answer all the research questions asked for this study. Below are given research hypotheses specifically objective wise.

### **Effects of Entrepreneurial Orientation, Network Relationships, Global Mindset, Government Support, and Human Capital on Internationalization**

As suggestions drawn from literature that mainly two types of factors, internal and external are determining internationalization SMEs (Oviatt and McDougall, 1995; Antoncic and Hisrich, 2001; Zahra and George, 2002; Wright et al., 2007; Coombs et al., 2009; Chandra and Coviello, 2010; Kiss et al., 2012, Saad, 2014).

Entrepreneurial characteristics, organizational context, and external environment are the main factors influencing success of SMEs (Hashim, 2000b). Moreover, findings of another study by Che-Senik et al. (2010) concluded that internationalization in SMEs is influenced by firm's characteristics, factors related to industry, external influences, and motivational aspects. In addition, Saad (2014) claimed that SMEs are positively influenced for internationalization by factors from both the organizational or internal and environmental or external. Thus, the above evidences strongly support that determinants of internationalization for SMEs in Punjab are organizational and environmental characteristics. Hence, in this study entrepreneurial orientation, network relationships, global mindset, and human capital are used as organizational characteristics and

government support is used as an environmental characteristic affecting internationalization of SMEs.

Entrepreneurial orientation as a determining variable for internationalization of SMEs is acknowledged by several studies (Lu and Beamish, 2001; Zahra and George, 2002; Night and Cavusgill, 2004; Melia et al., 2007; Saad, 2014). A firm's internationalization by either of the ways exporting or foreign direct investments is no more than an entrepreneurial act, as it involves identification and exploitation of new business opportunities in a new environment, requiring attitudes of innovativeness and proactiveness (Fletcher, 2004; Night and Cavusgill, 2004). In addition, internationalization is not risk free, there are probabilities of failure in uncertain foreign markets (Lu and Beamish, 2001). As suggested by (Covin and Miles, 1999; Covin et al., 2006) that there exists a strong relationship between entrepreneurial orientation development and flexible organizational procedures, which leads to searching of international business opportunities proactively, and quick economic exploitation. As early a firm internationalizes, readier is firm to explore and develop new business opportunities in an entrepreneurial manner.

Highly entrepreneurial oriented firms are identifying new business opportunities early than competitors, and their proactive and risk-taking behavior assists them in exploitation of opportunities before their competitors (Melia et al., 2007). In consistence, Knight and Cavusgill (2004) recommended that entrepreneurial orientation should be a tool for expansions and success in international markets. The review of literature and the arguments above suggest that there exists a relationship between entrepreneurial orientation and internationalization of SMEs. Therefore, the study hypothesizes that entrepreneurial orientation will impact internationalization. Thus, the hypothesis is proposed:

**H1: Entrepreneurial Orientation has positive effect on Internationalization.**

Cognitive capabilities or global mindset of decision makers are the prominent factors influencing internationalization of organization (Murtha et al., 1998; Harveston et al., 2000; Jeannet, 2002; Gupta and Govindarajan, 2002; Nummela et al., 2004; Levy 2005; Saad 2014). Scorbrough et al. (2012) claimed that a different kind of mindset is needed

for being a global entrepreneur, and to achieve success, firms need to be seen from global perspective by entrepreneurs, a global culture needs to be instilled in firms infused in all its business activities. This phenomenon is emerging in competitive markets and it is required to shift entrepreneurial focus from organizational structures and systems of administration to mindset based capabilities (Bartlett and Ghoshal, 1990). Many researchers have viewed that global mindset is pre-requirement of rapid internationalization of a firm (Fletcher, 2000; Harveston et al., 2000; Harveston et al., 2002; Knight, 2001; Townsend and Cairns, 2003). Oviatt and McDougall (1995) claimed that those new ventures which were management by having global vision hold ability of quick and successful internationalization. Knight (2001) observed that firms characterized as rapid internationalizers have more global orientation than others. The discussion above indicates importance global mindset has for internationalization, therefore following hypothesis can be drawn:

**H2: Global Mindset has positive effect on Internationalization.**

Many studies emphasizes on significance of network relationships on internationalization behavior of firms (Ojala, 2008). Network relationships provide assistance to firms in accessing to resources, improvement in strategies, transaction cost control, improving skills, and coping positively with fast technological changes (Alvarez and Barney, 2001; Hitt and Ireland, 2000; Das and Teng, 1998). In line with this McDougall et al., (1994) claimed that networks are of great assistance to entrepreneurs of international new ventures or new global startups, in identifying opportunities in international business, and influences their country selection. Many researchers claimed that network relationships have impacts on SMEs in selection of their market and mode of entry, further, networks initiate internationalization process by following networks in outside domestic markets (Coviello and Martin, 1999; Coviello and Munro, 1995, 1997; Moen et al., 2004; Zain and Ng, 2006). This is in concurrence with the assumptions of internationalization model by Johanson and Mattsson (1988) that network relationships work as a bridge and facilitates firms in international markets.



Importance of networks to SMEs is recognized by many studies (Hara and Kanai, 1994; Kaufmann, 1995; Coviello and Munro, 1995; Korhonen et al., 1995). Majority of the SMEs in Finland get involved into international network connections to start process of internationalization (Korhonen et al. 1995). Coviello and Munro (1995) observed that successful software firms in New Zealand were well connected to their international networks and are frequent in outsourcing marketing activities to these network partners. Bonaccorsi (1992) found that access to resources outside firms control, through relationship of buyer and seller, plays a significant role in internationalization of SMEs in Italy. Recently Ibeh and Kasim (2011) found that networks play a crucial role at initial stages of internationalization, in market selection and attaining speed, in Syrian software SMEs. Therefore, influence of network relationships on internationalization of SMEs in Punjab cannot be ignored, and the following hypothesis can be drawn:

**H3: Network Relationships have positive effect on Internationalization.**

Government assistive policies play a vital role in augmenting the path of internationalization in SMEs (Acs et al. 2001). SMEs are short of resources both internally and externally, Government policies play a crucial role in alliancing with upstream and downstream companies in foreign markets (Kang and Park, 2012). Logically the way government can make influences on SMEs is by directly supporting through policies and programmes of assistance to overcome their disadvantage of small size (Smallbone and Welter, 2001). Governments support through programmes of general financing and by treating entrepreneurial ventures preferable (Spencer and Gomez, 2004), making resource availability by governmental programs (Doutriaux, 1998), assistance in developing businesses (Phillips, 1993) and government's assistant programs for exports (Reynolds, 1997) assists people in their entrepreneurial activities. Abdullah (1999) divided government assistance programmes in Malaysia into five categories of "financial credit assistance, technical and training assistance, extension and advisory services, marketing and market research, and support in developing infrastructure".

Several studies have studied the importance of Government support programs for SMEs. As, Yusuf (1995) claimed that small businesses in South Pacific have been dominantly led by government support towards success. Acs et al. (2001) found that Government policies directly impact the path to internationalization in Canadian SMEs. In another recent study by Kang and Park (2012) found that Government supports in form project funding affects innovation outputs directly and indirectly, in biotech SMEs of South Korea. Thus, with the expectation that Government support will impact internationalization, the following hypothesis is drawn:

**H4: Government Support has positive effect on Internationalization.**

Ruzzier et al. (2007) studied the role of human capital and its dimensions on internationalization of Slovenian SMEs and found that there exists positive relationship between entrepreneur's human capital and internationalization of the firm. Cerrato and Piva (2010) claimed that levels of human capital along with foreign shareholders present in SMEs has positively influenced internationalization of Italian manufacturing SMES. In addition, Goxe (2010) found in Chinese SMEs that human capital of entrepreneurs in combination of two or more components has positive effects on their internationalization. Lafuente and Rabetino (2011) argued that human capital materializes growth of small firms' through productive employment. Galabova and Mckie (2013) claimed that for managers of SMEs human capital and its components are the resources available in abundance widening scope for personal and firm competitive advantage in European countries. Onkelinx et al. (2016) suggested that for rapid internationalization, firms need to develop their human capital with education and trainings. In another study by Onkelinx et al. (2015) found that in case of strategically accelerated internationalizing firms there is a positive association between investing in human capital and internationalization or export intensity.

Javalagi and Todd (2011) in their study on Indian SMEs found that there is a positive relationship between human capital and degree of internationalization in Indian SMEs. Education level and international experience as dimensions of human capital are

predicting the internationalization of firms. Ruzzier et al. (2013) in their study of human capital and internationalization of Slovenian SMEs found that human capital is directly and positively influencing their degree of internationalization. Thus, from the arguments above and the review of literature, it is expected that human capital can be influencing internationalization of SMEs in Punjab. Therefore, following hypothesis is proposed:

**H5: Human Capital has positive effect on Internationalization.**

### **Effects of Internationalization on Firm Performance**

Researchers have shown keen interest to investigate the effects of internationalization on performance. It is held that successful previous performance of firms creates the resources required to expand into international markets (Zahra and George, 2002). Pangarkar (2008) studied internationalization and performance of Singaporean SMEs and found that higher degree of internationalization in SMEs results in their better performance. However, Chio, Yang, and Yu (2006) revealed that the relationship of internationalization with performance is of an inverted U-shaped curve, means internationalization up to a specific level yields maximum profitability, in the SMEs of Taiwan, a newly industrialized economy. Bausch and Krist (2007) found statistically significant but of low magnitude correlation between internationalization and performance and claimed that this relationship of internationalization and performance depends on the context.

Bloodgood et al. (1996) in their study found that the relationship between degree of internationalization and firm's income is significantly positive. In addition, McDougall and Oviatt (1996) found an association between "higher levels of internationalization" and "higher relative market share" in IT firms. Thus, internationalization can have impact on performance of SMEs in Punjab, and hypothesis is proposed as:

**H6a: Internationalization has positive effect on Firm's Financial Performance.**

Many studies are in support of introducing indicators of non-financial parameters to assess performance accurately. Ma and Wang (2006) reported that development in innovations and technology is playing a vital role in enhancing competitive advantage of Chinese firms

globally. According to Kogut and Zander (1992) “competitive capability is a firm’s ability to deploy resources using organizing processes and principles to achieve its strategic objectives”. For measuring performance outcomes of internationalization Zahra and George (2002) advocated for using both financial and non-financial measures, because financial measures alone are indecisive to measure outcomes of internationalization. Saad (2014) used both financial and non-financial dimensions for measuring firm performance in Malaysian SMEs. Thus, the arguments made in these studies and review of literature lead to following hypothesis:

**H6b: Internationalization has positive effect on Firm’s Non-Financial Performance.**

**Relationship of Entrepreneurial Orientation, Network Relationships, Global Mindset, Government Support, and Human Capital with Firm Performance.**

Entrepreneurial orientation is recognized as a significant factor for firm’s growth and profitability (Zainol and Ayadurai, 2011). Higher growth of a firm has correlation with its entrepreneurial orientation (Stevenson and Jarillo, 1990). Hamel (2000) claimed that components of entrepreneurial orientation are positively associated with firm’s better performance and considered entrepreneurial orientation as an important factor for firm’s success.

Entrepreneurial orientation influences firm performance (Lyon et al., 2000). Many studies have suggested that increasing entrepreneurial orientation increases financial performance of firms (Miller, 1983; Covin and Slevin, 1989; Zahra, 1993). However, Miller and Friesen (1983) argued that entrepreneurial orientation beyond a limit can turn harmful to financial performance of firm. From the small business perspective, researchers have predicted a strong positive relationship between entrepreneurial orientation and firm performance, small size assists and encourages for flexibility and innovations (Wiklund, 1999). Similarly, relationship has been found positive between entrepreneurial orientation and performance of small firms in Sweden (Wiklund and Shepherd, 2005). In another study on small firms of Thailand and Vietnam, positive correlation has been found between

dimensions of entrepreneurial orientation and performance (wierczek and Ha, 2003). Consequently, the hypothesis is proposed as:

**H7a: Entrepreneurial Orientation has a positive relationship with Firm's Financial Performance.**

Ma and Wang (2006) reported that development in innovations and technology is playing a vital role in enhancing competitive advantage of Chinese firms globally. According to Kogut and Zander (1992) "competitive capability is a firm's ability to deploy resources using organizing processes and principles to achieve its strategic objectives". Zahra et al. (2000) established a relationship of "international entrepreneurship" with "technological learning" and "knowledge acquisition. For measuring performance outcomes of internationalization, Zahra and George (2002) advocated for using both financial and non-financial measures, because financial measures alone are indecisive to measure outcomes of internationalization. Saad (2014) used both financial and non-financial dimensions for measuring firm performance in Malaysian SMEs. Thus, the hypothesis is proposed as:

**H7b: Entrepreneurial Orientation has a positive relationship with Firm's Non-Financial Performance.**

Several researchers viewed global mindset or cognitive capabilities of decision makers as an influencing factor of firm outcome (Gupta and Govindarajan, 2002; Murtha et al., 1998; Harveston et al., 2000; Jeannet, 2000; Levy, 2005). Nummela et al., (2004) in a study on information and communication technology small firms of Finland and found that global mindset is positively associated to their international performance. Quinn and Alexander (2006) found that managers cognitive abilities, along with international experience and skills significantly influence to expansion motives, processes, and strategies of foreign business development. Thus, the hypothesis is proposed as:

**H8a: Global Mindset has a positive relationship with Firm's Financial Performance.**

Measuring firm's performance is not without complexities, and largely depends on the context (Nummela et al., 2004). Due to many difficulties in assessment of performance in exporting firms, researchers have often used subjective and perceptual measures (Leonidou et al., 2002). Thus, the hypothesis is proposed as:

**H8b: Global Mindset has a positive relationship with Firm's Non-Financial Performance.**

Watson (2007) found that networks have significant and positive association with firm's performance and survival. Kenny and Fahy (2011) in their study found that strong networking ties of Irish telecom SMEs influence their international performance, coordination of networks are significantly and positively associated with their international performance. Similarly, Meng et al. (2016) found in Chinese SMEs that personal networks and relationships with financial institutions has a positive relationship with their international performance. Further, Musteen et al. (2010) in their study on Czech SMEs observed that networks with geographic diversification are contributors in their superior performance. Florin et al. (2003) claims that networks allow their members to access social resources entrenched in networks; networking provides means to small business owners to avail the required resources available outside their firms. Thus, hypothesis can be proposed as:

**H9a: Network Relationships has a positive relationship with Firm's Financial Performance.**

Networks are not beneficial to SMEs only in financial outcomes, but also contribute to non-financial parameters. Networks help startups in accessing information and knowledge (Prashantham, 2005), resources and legality (Brass et al., 2004), and achieving competitive advantage (Etemad et al., 2001; Barney, 2002). Florin et al. (2003) claims that networks allow their members to access social resources entrenched in networks; networking provides means to small business owners to avail the required resources available outside

their firms. Thus, an impact of networks on firm's non-financial performance can be expected, and hypothesis proposed as:

**H9b: Network Relationships has a positive relationship with Firm's Non-Financial Performance.**

A large proportion of SMEs require support and assistances from Governments to compete in foreign markets environments (Muhammad et al., 2010). Logically the way government can make influences on SMEs is by directly supporting through policies and programmes of assistance to overcome their disadvantage of small size (Smallbone and Welter, 2001). Governments support through programmes of general financing and by treating entrepreneurial ventures preferable (Spencer and Gomez, 2004), making resource availability by governmental programs (Doutriaux, 1998), assistance in developing businesses (Phillips, 1993) and government's assistant programs for exports (Reynolds, 1997) assists people in their entrepreneurial activities.

Spencer and Gomez (2004) claimed that government policies impact entrepreneurial success, while Acs, Morck, and Yeung (2001) claimed SMEs path is highly influenced by the policies of the government. Durmusoglu et al. (2012) found that export promotion services have improved all the dimensions of export performance in Turkish SMEs as "financial, stakeholder relationships, strategic, and organizational learning goal achievements". The study further describes that performance is affected by specific export promotion services. Yusuf (1995) claimed government's support contributes in success of south pacific small firms. Governmental support in developing countries is mainly in areas of building infrastructure and working for incentives. Francis and Dodd (2004) while examining the impact of export promotion programs on competency, strategy, and performance of high tech SMEs of Canada, found that "achievement of export objectives" and "export expansion strategies" are highly influenced by using government's export promotion programs, and "export marketing competencies" are enhanced by these programs. Government support programs contribute factors related to both firms and managers in determining performance in international markets (Shamsuddoha et al., 2009).

From these arguments above and the literature review positive effect of Government support on financial performance of SMEs in Punjab is expected, therefore, hypothesis is proposed as:

**H10a: Government Support has a positive relationship with Firm's Financial Performance.**

Notably, Government support has a role in improvement of non-financial performance in SMEs. Kang and Park (2012) conducted a study on influences of government's research and development support on innovations of Biotech SMEs in South Korea. Significant association was found between collaborations and partnerships with innovative output of these firms. Governments supportive programs like "project funding" has both direct and indirect effects on firm's innovations. It stimulates internally firms in their research and development and helps in collaborating domestically both upwards and downwards. Ahmad (2008), and Ahmad and Kitchen (2008) found that Malaysian firms are competitively ahead with advantages in terms of "technological skills" and "knowledge capabilities" with a committed government support for their expansion. Thus, effect of government support on non-financial performance is expected in SMEs of Punjab and hypothesis proposed as:

**H10b: Government Support has a positive relationship with Firm's Non-Financial Performance.**

Several researchers studied the role of human capital in performance of small firms. Teo et al., (2011) claimed that human capital enhancements and human resource management systems impacts directly and indirectly to the performance outcomes of manufacturing SMEs. Fatoki (2011) on South African SMEs found that human capital along with other two social capital and financial capital are positively related to their performance. Unger et al. (2011) found that small but significant relationship exists between human capital and success of small firms. Durrani and Forbes (2003) further strengthened the claim by stating



that there is a connection between organization's success and their investments in human capital. Muda and Rahman (2016) concluded that direct and indirect role of human capital in improvement of SMEs performance cannot be denied. Based on arguments made above and the review of literature, effect of human capital on financial performance of SMEs in Punjab can be expected, and hypothesis proposed as:

**H11a: Human Capital has a positive relationship with Firm's Financial Performance.**

Role of human capital is not limited to internationalization and financial performance only. Lafuente and Rabetino (2011) claimed that "human capital matters for explaining small firm's employment growth". Galabova and Mckie (2013) in their study on firms of Scotland, Finland, and Bulgaria found that human capital and its components are the resources available in abundance widening scope for personal and firm competitive advantage. Thus, the effect of human capital on non-financial performance of SMEs in Punjab can be expected, and hypothesis proposed as:

**H11b: Human Capital has a positive relationship with Firm's Non-Financial Performance.**

**Mediating effects of Internationalization on the relationships between Entrepreneurial Orientation, Global Mindset, Network Relationships, Government Support, Human Capital, and Firm Performance.**

Although, internationalization plays an important role and scholars are extensively committed to this field, inconsistency has been shown in results by empirical examination of organizational and environmental characteristics, and internationalization on performance of firms (Zahra and George, 2002). Direct effects of entrepreneurial orientation, network relationships, global mindset, government support, and human capital on firm performance has got support from many studies (Gupta and Govindarajan, 2002; Watson, 2007; Teo et al., 2011; Zainol and Ayadurai, 2011; Kang and Park, 2012). However, several other studies (Aldrich and Reese, 1993; Lee and Beamish, 1995; Rasmussen et al., 2001; Leonidou et al., 2002; Shere, 2003) have ruled out the assumption

that organizational characteristics and internationalization directly affects firm's financial performance. Even support can be found as country specific, studies found support investigating the sample from developed countries (Aulakh et al., 1996), while some studies did not found support investigating on sample from developed countries (Lee and Beamish, 1995; Sherer, 2003). Therefore, Moreno and Casillas (2008) suggested that there can be indirect relationship and mediating and moderating effects of other variables on the relationships.

Internationalization has been used as mediator by many studies on relationships between organizational and environmental characteristics and performance of firms' (Antoncic and Hisrich, 2001; Zahra and Gorge, 2002; Ruzzier et al., 2006; Tanvisuth, 2007; Chelliah et al., 2010). Tanvisuth (2007) found partial mediating effect of internationalization on the relationship between organizational characteristics and firm performance in Thai SMEs. In other study by Ruzzier et al. (2001) indicates that internationalization mediates the relationships between the organizational characteristics and financial performance of firms. Thus, in this study hypothesis is proposed as:

**H12a: The relationship between Entrepreneurial Orientation and Firm's Financial Performance is mediated by Internationalization.**

For mediating relationship of internationalization on the relationship between organizational characteristics and non-financial performance, Zahra and George (2002) postulated that internationalization mediates relationships between firm's management characteristics, firm resources, and firm variables, and firm's non-financial performance. Thus, hypothesis in this study is proposed as:

**H12b: The relationship between Entrepreneurial Orientation and Firm's Non-Financial Performance is mediated by Internationalization.**

Leonidou et al. (2002) claimed mediating effect of internationalization on the relationship between managerial characteristics and export performance of firms. In addition, mediating

role of internationalization on the relationship between global mindset and firm performance in Thai SMEs is studied by Tanvisuth (2007). Therefore, this study propose hypothesis as:

**H13a: The relationship between Global Mindset and Firm's Financial Performance is mediated by Internationalization.**

Measuring firm's performance is not without complexities, and largely depends on the context (Nummela et al., 2004). Due to many difficulties in assessment of performance in exporting firms, researchers have often used subjective and perceptual measures (Leonidou et al., 2002). Further, claimed that firm performance is evaluated by utilizing product and market related non-financial measures along with other financial measures. Thus, this study proposes hypothesis as:

**H13b: The relationship between Global Mindset and Firm's Non-Financial Performance is mediated by Internationalization.**

Georgiou et al. (2005) developed a model on SMEs internationalization and performance based on the resource based (RBV). Further, the model posited that internationalization mediates the relationship between network relationships and firm's financial performance. This view is further supported by Zahra and George (2002) revealed that mediating effect of internationalization is found on the relationships between organizational factors and firm's financial performance. Thus, this study has proposed hypothesis as:

**H14a: The relationship between Network relationships and Firm's Financial Performance is mediated by Internationalization.**

Furthermore, Georgiou et al. (2005) also found that internationalization mediates the relationship between network relationships and firm's non-financial performance. The influence of network relationships on non-financial performance are recorded (Etemad et al., 2001). Networks help startups in accessing information and knowledge (Prashantham,

2005), resources and legality (Brass et al., 2004), and achieving competitive advantage (Etemad et al., 2001; Barney, 2002). Thus, this study proposes hypothesis as:

**H14b: The relationship between Network Relationships and Firm's Non-Financial Performance is mediated by Internationalization.**

International entrepreneurship conceptual model by Antoncic and Hisrich (2001) emphasizes on the external environment (including environments in both domestic and international markets) as determining variables of internationalization and performance in SMEs. Further, claimed that relationship between domestic market environment and firm's financial performance is mediated by internationalization. Supporting this study, Tahir et al. (2011) predicted the existence of mediation and moderation effects on relationships between government support and SMEs development and performance. Therefore, this study proposes hypothesis as:

**H15a: The relationship between Government Support and Firm's Financial Performance is mediated by Internationalization.**

According to Compbell (2007) non-financial performance poses difficulty in its measurement. However, its appropriation is considered, as it gives complete picture of firm's performance in combination with financial performance measures. In another recent study by Kang and Park (2012) found that Government supports in form project funding affects innovation outputs directly and indirectly, in biotech SMEs of South Korea. Thus, hypothesis in this study is proposed as:

**H15b: The relationship between Government Support and Firm's Non-Financial Performance is mediated by Internationalization.**

According to Vidotto, Ferenhof, Selig and Bastos (2017) business organizations needs to be vigilant and dynamic in using their resources efficiently, especially those assets which constitute intellectual capital, so that positive results can be achieved in long run. Human

capital is pivotal constituent of intellectual capital (Mention and Bontis, 2013). Durrani and Forbes (2003) further strengthened the claim by stating that there is a connection between organization's success and their investments in human capital. This study expects that internationalization enables SMEs in Punjab to draw more financial gains. Therefore, hypothesis for study is proposed as:

**H16a: The relationship between Human Capital and Firm's Financial Performance is mediated by Internationalization.**

Because of unique features of individuals, it is difficult to imitate human capital, and attains strategic importance in organizations to be at frontline, therefore organizations must develop and maintain human capital to succeed (Ndinguri et al., 2012). Muda and Rahman (2016) claimed that human capital is capable to transfer information into knowledge, thus indicating firm's investments are mainly rooted through human capital, therefore, human capital works for SMEs in value creation and performance superiority. Galabova and Mckie (2013) opined that for managers of SMEs, human capital and its components are the resources available in abundance widening scope for personal and firm competitive advantage. Thus, this study expects that internationalization enables SMEs in Punjab to utilize maximum human capital and draw more non-financial gains. Thus, hypothesis in this study is proposed as:

**H16b: The relationship between Human Capital and Firm's Non-Financial performance is mediated by Internationalization.**

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

This chapter discusses the research methodology used to collect and analyze data to answer the research questions of this study. The chapter begins with research design, further describes sample selection method along with the sampling process. At the end instrument design and self-developed scales on the three constructs are discussed.

#### **3.1 Research Design**

Research design for present study is descriptive and cross sectional. There are total eight variables used, out of them five variables are studied as determinants of internationalization and taken as independent variables. Other three variables are studied as mediating and dependent variables. Quantitative method of research has been applied; survey has been conducted to collect data using a survey schedule.

The main information has been collected from owners and highest-ranking officers of SMEs in Punjab, with sufficient knowledge of their firm's characteristics, management styles, international business operations, and performance. The collected data has been analyzed using software packages of MS Excel, Statistical Package for Social Sciences (SPSS), and AMOS. Techniques used to analyze data to arrive on meaningful results were multivariate analysis using SPSS and structure equation modeling using AMOS.

#### **3.2 Sample Selection Method**

Present study has followed recommended method by Hair et al. (2007) to select a sample most representative of the population characteristics. The procedure set by Hair et al. (2007) includes defining of the target population, selection of sampling method, and determining a sample size.

### **3.2.1 Target Population of the Study**

Target population for this study includes manufacturing sector SMEs of Punjab which are involved in international business. These manufacturing sector SMEs have been divided broadly into four categories of: manufacturing light engineering goods, cycle and cycle parts, textile, hosiery and woollens, and sports goods.

The study has followed the definition of MSME Development Act (2006) for defining these manufacturing SMEs in Punjab. According to this definition these MSMEs in manufacturing sector are classified as: Those enterprises in which investment in plant and machinery is up to 25 lakhs are classified as micro enterprises. Enterprises in which investment in plant and machinery is from 25 lakhs to 5 crores are classified as small enterprises, and those in which investment in plant and machinery exceeds from 5 crores and limits up to 10 crores are classified as medium enterprises.

### **3.2.2 Method of Sampling**

Sample frame has been prepared from updated lists and directories of Directorate of Commercial and Statistical Intelligence, Department of Industries and Commerce, Government of India, Chamber of Industrial and Commercial Undertakings (CICU) Ludhiana, Punjab, Jalandhar Chamber of Commerce, and MSME development institute Ludhiana, Punjab. These directories comprised information regarding enterprise name, products dealing with, office address, communication details, and the contact person names.

Random sampling has been used as method of sampling. Further, in random sampling, the process of stratified random sampling by using lottery method has been used to select the sample. The process of stratified random sampling involves stratifying or segmenting of population into homogeneous groups called strata's. These elements within each strata are referred as stratum and should be homogenous, while as there should be inter contrast or heterogeneity among strata's of the population. This study uses National Industrial Classification (NIC-2008) to classify manufacturing SMEs in Punjab, which are involved in international business, broadly into four categories. The classification has been

conducted based on industry type of the firm. These categories include: (i) Light engineering goods, (ii) Cycle and cycle parts, (iii) Textile, hosiery and woolens, and (iv) Sports goods industry. These four types of industries are considered as four strata's of the population, as each industry contains homogenous firms in terms of their industry type. However, these four strata's deal with manufacturing of different types of products, which shows heterogeneity among these strata's of population.

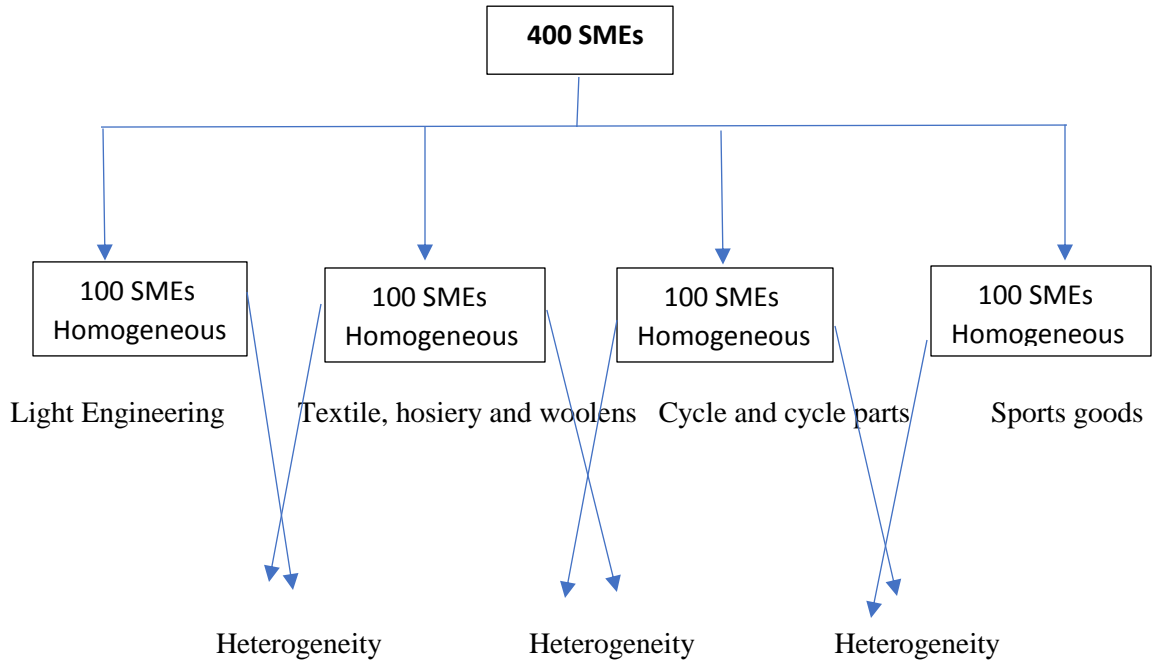
The unit of analysis for this study is the SME. Two respondents from each firm have been selected to record responses, one respondent selected was the owner and other highest-ranking officer of the firm fully aware about firm characteristics, international business operations, and performance of the firm. Respondents job title, position, and responsibilities within the enterprise were assessed before responses recorded, as recommended by Vida et al. (2000).

### **3.2.3 Sample Size**

The sample size of 400 SMEs has been determined using the procedure suggested by Krejcie and Morgan (1970) along with design effect, from the sample frame consisting more than 1200 manufacturing SMEs involved in international business. These 400 SMEs were further divided into four broad types of industries as 100 firms from each industry. In this way 100 SMEs has been selected from the industry of light engineering goods, 100 SMEs from textile, hosiery and woolens, 100 SMEs from cycle and cycle parts industry, and 100 SMEs from sports goods industry.



**Figure 3.1: Sample size process**



### **3.3 Designing of the Instrument**

This section discusses the instrument development process. Scale development and measurement of variables is described. The steps followed in developing measurement scales and finalization of overall instrument for the study.

#### **3.3.1 Instrument Development**

To collect data from SMEs a survey schedule was used. The design of whole instrument was based on the design of proposed research model of this study. The instrument has been formed with combination of all the questions related to variables of the study, under separate headings of these variables. Overall survey schedule instrument has been divided into three sections. Section 1 consists five determining variables, labelled as five parts of the section from part A to part E. Section 2 consists of statements measuring the construct of internationalization. Section 3 represents firm performance, divided into two parts

representing financial performance and non-financial performance as shown in appendix II.

Likert scale has been used to record responses of respondents. This is the ideal method of scaling over others, to record responses from respondents specifying their degrees of agreement and disagreement separately for each statement in the instruments (Malhotra, 2008; Meric, 1994; Mclver and Carmines, 1981). Present study has employed widely used five-point Likert scale to measure constructs of the study. The scale responses ranged from 1 (strongly disagree) to 5 (strongly agree) with a neutral point at 3 (neither agree nor disagree). Five point-Likert scale is considered short and precise to help respondents complete the questionnaire or survey instrument and is used widely in studies.

### **3.3.2 Self-developed Scales**

There are total eight variables used in this study. These eight variables are: entrepreneurial orientation, network relationships, global mindset, government support, human capital, internationalization, financial performance, and non-financial performance. Out of these variables scales for three variables internationalization, human capital, and network relationships have been developed in present study. For rest of the five variables entrepreneurial orientation, global mindset, government support, financial performance, and non-financial performance, standardized tools after minor modifications in their language into Indian context have been used.

#### **3.3.2.1. Development and validation of scales on Internationalization, Human Capital, and Network Relationships**

Present study has followed the procedure of some previous prominent studies (De vellis, 2016; Netemeyer et al., 2003; Worthington & Whittaker, 2006; Wymer and Alves, 2012) to develop measurement scales for these constructs. The procedure recommended is as follows:

- (1) Definition of the construct intended to be measured
- (2) Generation of items
- (3) Expert view on items generated
- (4) Refinement and validation of the scale
- (5) Evaluation of the scale

Extensive literature review has been done to generate items for measuring dimensions of these constructs. After the dimensions of the constructs and related statements were drawn from extensive literature review, content validity has been carried out. Content validity was done by five academicians and five industry experts. The formula given by Veneziano (1997) has been used to calculate expert responses on items as:  $CVR = (\text{Total number of experts who answered positively} / (\text{Total number of experts} / 2)) - 1$ . CVR is the content validity rate and its value range from -1 to +1. Three items from construct of internationalization, four from the construct of human capital and two from the construct of network relationships were deleted because of their negative CVR value. Besides this language modifications were suggested by experts which were incorporated.

#### **3.3.2.1.1 Scale on Internationalization**

This questionnaire was administered, and data has been collected from 140 respondents from 70 SMEs for scale development. Correlation matrix of the construct revealed all correlations greater than 0.30. Presence of correlation among variables of construct is tested by Bartlett's test of sphericity, which shows significant correlations in correlation matrix (P value is 0.000). Also sample adequacy was measured by Kaiser-Mayer-Olkin measure, KMO value is 0.814, which indicates a meritorious sample adequacy. Sample adequacy is meritorious when KMO value is more than 0.80.

**Table 3.1. KMO and Bartlett's Test for Internationalization**

|                    |                                 |
|--------------------|---------------------------------|
| KMO                | <b>0.814</b><br>P-value = 0.000 |
| Approx. Chi-Square | 928.116                         |
| Degree of Freedom  | 91                              |

The range of sample adequacy is between 0 to 1, but only greater than 0.5 is acceptable. After all the assumptions of applying the test were met, factor analysis was applied. The number of variables to be extracted was determined by 'Latent Root Criterion' and 'Percentage of Variance Criterion'. In the former criterion, eigen values are used and only those factors are considered significant having eigen value or latent root greater than 1, other items were deleted keeping in mind their insignificance. The later criterion is based on achieving a specific cumulative percentage of total variance extracted by successive factors, with the sole purpose of explaining at least a specified amount of variance. There has not been adopted any threshold value, but for social sciences 60 percent of total variance is considered satisfactory (Hair et al., 2010). The results show only three factors are extracted meeting all the conditions of above criterion (Eigen value greater than 1 and cumulative percentage of variance 60.916 percent) from total variance explained in table. The results are also confirmed from scree plot.

By extraction method of principal component analysis and rotation method of varimax. Two items had been excluded for factor loadings below 0.45, which is the minimum value set as per sample size of 140 supported by Hair et al., (2010), to suppress factors. All other items of the construct have been divided into three dimensions shown in the table of rotated component matrix. There are now six items in first component, three items each in second and third. The results of factor analysis, with three dimensions of Internationalization construct along with their pertaining items and factor loadings are shown in table 3.2.

**Table 3.2. Internationalization Dimensions with Factor loadings**

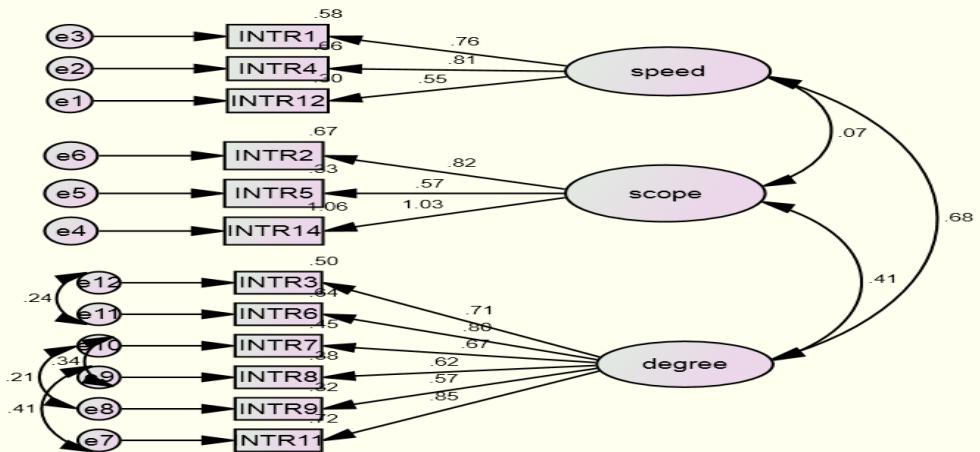
| Dimensions and items  | Factor Loadings |
|---|-----------------|
| <b><i>Degree of Internationalization</i></b>  |                 |
| <i>Estimated % increase in your company's total sales as compared to last year</i>  | 0.694           |
| <i>Estimated % of your company's sales from international operations out of last year total sales.</i>  | 0.773           |
| <i>Estimated % increase in your company's total sales from international operations as compared to last year.</i>                             | 0.596           |
| <i>Estimated % increase in your company's total profits as compared to last year.</i>   | 0.780           |
| <i>Estimated % of your company's profits from international operations out of last year's total profits.</i>                                  | 0.565           |
| <i>Please estimate the percentage increase in your company's profits from international operations as compared to last year.</i>              | 0.820           |
| <b><i>Speed</i></b>   |                 |
| <i>Estimate how long your company has been actively involved in business.</i>   | 0.797           |
| <i>Estimate how long your company has been actively involved in international business.</i>   | 0.779           |
| <i>Estimate the percentage increase in your company's international customers as compared to last year</i>                                    | 0.704           |
| <b><i>Scope</i></b>   |                 |
| <i>Indicate the total number of your company's market (countries, states).</i>  | 0.835           |
| <i>Indicate the total number of your company's international markets (countries, states).</i>   | 0.721           |
| <i>Indicate the percentage increase in your company's total number of international markets (countries, states) as compared to last year.</i> | 0.871           |

To validate the findings of exploratory analysis, confirmatory factor analysis was applied. The model did not show good fit indices when first it was run, it was observed that after treating covariances between some error terms (e11 and e12, e8 and e10, e9 and e10, e7 and e8) as free parameters, good model fitness is possible. Therefore, same was done and model was run repeatedly, finally all good model fit indices were achieved as shown in Table 3.3, CMIN/DF = 1.495, RMR = 0.017, GFI (Goodness of Fit Index) = 0.921, AGFI (Adjusted Goodness of Fit) = 0.869, NFI (Normed Fit Index) = 0.910, CFI (Comparative Fit Index) = 0.967, RMSEA (Root Mean Square Error of Approximation) = 0.06, Chi-Square = 70.3 with df. minimum at 47.

**Table 3.3 Model Fit Indices for Internationalization**

|                    | <i>1<sup>st</sup> Run</i> | <i>2<sup>nd</sup> Run</i> | <i>3<sup>rd</sup> Run</i> | <i>4<sup>th</sup> Run</i> |
|--------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| <b>Chi-Square.</b> | 105.5                     | 95.9                      | 90.7                      | 70.3                      |
| <b>Df.</b>         | 51                        | 50                        | 49                        | 47                        |
| <b>CMIN/DF</b>     | 2.069                     | 1.918                     | 1.851                     | 1.495                     |
| <b>RMR</b>         | 0.020                     | 0.020                     | 0.019                     | 0.017                     |
| <b>GFI</b>         | 0.886                     | 0.896                     | 0.899                     | 0.921                     |
| <b>AGFI</b>        | 0.825                     | 0.836                     | 0.839                     | 0.869                     |
| <b>NFI</b>         | 0.865                     | 0.877                     | 0.884                     | 0.910                     |
| <b>CFI</b>         | 0.924                     | 0.936                     | 0.942                     | 0.967                     |
| <b>RMSEA</b>       | 0.095                     | 0.088                     | 0.085                     | 0.064                     |

**Figure 3.2. CFA model for construct of Internationalization**



## **Reliability and Validity**

After the results of EFA confirmed by CFA and a good model fit achieved, last and important stage is reliability and validity of scale drawn. Content validity has been already conducted at the initial stage. Now establishing construct validity involves empirical assessment of reliability and validity (convergent and discriminant). Convergent validity is measured by Composite Reliability (CR) and Average Variance Extracted (AVE) measures. Composite reliability is the measure of internal consistency of the construct in the scale, while Average Value Extracted (AVE) is the extent of the variance of variable which is explained by latent construct. Following conditions are met to establish convergent validity: Composite Reliability should be greater than 0.7, Average Variance Extracted (AVE) should be greater than 0.5, and Composite reliability should be greater than Average Variance Extracted, in each dimension of the construct. Composite Reliability and Average Variance Extracted has been calculated for each dimension shown in Table 3.4. In case of first dimension 'Degree' CR = 0.856, and AVE = 0.502. Hence, CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. In case of second dimension 'Speed' CR = 0.754, and AVE = 0.511. CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. In the last dimension 'Scope' CR = 0.861, and AVE = 0.686. CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. Therefore, in all the three dimensions all the conditions are met, and Convergent validity is established.

Discriminant validity can be analyzed with the help of Average Variance Extracted (AVE), Average Shared Variance (ASV), and Maximum Shared Variance (MSV) measures of construct in a multi item scale. After the good fit of CFA model, following conditions should be met to ensure discriminant validity: Average Variance Extracted (AVE) should be greater than 0.7, Average Variance Extracted (AVE) should be greater than Average Shared Variance (ASV), and Average Variance Extracted (AVE) should be greater than Maximum Shared Variance (MSV), for each dimension of the construct. Composite Reliability (CR), Average Variance Extracted (AVE), Average Shared Variance (ASV), and Maximum Shared Variance (MSV) has been calculated. Microsoft

Excel-based validity concerns toolkit developed by Prof. Gakingston was used to determine Convergent and Discriminant validity statics, shown in table 3.4. For first dimension ‘Degree’ AVE = 0.502, MSV = 0.460, ASV = 0.318. AVE is greater than 0.5, AVE is greater than ASV, and AVE is greater than MSV. In second dimension ‘Speed’ AVE = 0.511, MSV = 0.460, and ASV = 0.232. AVE is greater than 0.5, AVE is greater than ASV, and AVE is greater than MSV. In the third dimension ‘Scope’ AVE = 0.686, MSV = 0.176, and ASV = 0.088. AVE is greater than 0.5, AVE is greater than ASV, AVE is greater than MSV. Therefore, all the conditions are met and Discriminant validity for all the three dimensions is established.

**Table 3.4. Validity Measures of Internationalization**

| <b>Dimensions</b> | <b>CR</b> | <b>AVE</b> | <b>MSV</b> | <b>ASV</b> |
|-------------------|-----------|------------|------------|------------|
| <b>Degree</b>     | 0.856     | 0.502      | 0.460      | 0.318      |
| <b>Speed</b>      | 0.754     | 0.511      | 0.460      | 0.232      |
| <b>Scope</b>      | 0.861     | 0.686      | 0.176      | 0.088      |

After the Validity of the instrument was checked, Reliability has been checked in overall model and also dimension wise. Value of Cronbach’s alpha for the first dimension ‘degree’ = 0.874, ‘Speed’ = 0.738, and ‘Scope’= 0.767. Combined all these dimensions constitute 12 items and Cronbach’s alpha value shown is 0.866 shown in table 3.5.

**Table 3.5. Dimension wise Reliability of Internationalization**

| <b>Dimension</b>     | <b>No. of items</b> | <b>Cronbach’s alpha</b> |
|----------------------|---------------------|-------------------------|
| <b>Degree</b>        | 6                   | 0.874                   |
| <b>Speed</b>         | 3                   | 0.738                   |
| <b>Scope</b>         | 3                   | 0.767                   |
| <b>Overall model</b> | 12                  | 0.866                   |



All the three constructs were found reliable as the Composite Reliability (CR) for all three constructs is above threshold value of 0.7, proving the reliability of constructs (Nunnally, 1978). In addition, Cronbach's alpha value for all the three constructs is above 0.7, and for overall model is above 0.8. Construct validity is established by good model fit with convergent and discriminant validity (O'Learly-Kelly and Vokurka, 1998). For all the three constructs, CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. Therefore, convergent validity is established (Hair et al., 2010; Kumar et al., 2014). Values for Average Shared Variance (ASV) and Maximum Shared Variance (MSV) were calculated. For all the three constructs CR is greater than 0.7, AVE is greater than ASV, and AVE is greater than MSV, shown in table 3.4. So, therefore, discriminant validity is established (Hair et al., 2010; Kumar et al., 2010). In this way convergent validity and discriminant validity have been established for all the three constructs, therefore, construct validity of the scale is established.

#### **3.3.2.1. 2. Scale on Human Capital**

For development of this scale data has been collected from 140 respondents from 70 SMEs on the statements drawn from literature. Exploratory factor analysis was applied on the collected data. From the results of EFA, the appropriateness of factor analysis is determined by Correlation matrix of human capital items, as the visual inspection revealed all correlation greater than 0.30. Presence of correlation among variables of construct is tested by Bartlet's test of Sphericity, which shows significant correlations in correlation matrix (P value is 0.000). Also sample adequacy is measured by Kaiser-Mayer-Olkin measure, the KMO value is shown 0.808 from Table 3.6 which indicates a meritorious sample adequacy. Sample adequacy is meritorious when KMO value is above 0.80.

**Table 3.6 KMO and Bartlett's Test for Human Capital**

|                    |                                 |
|--------------------|---------------------------------|
| KMO                | <b>0.808</b><br>P-value = 0.000 |
| Approx. Chi-Square | 1265.363                        |
| Degree of Freedom  | 91                              |

The sample adequacy ranges between 0 to 1, but only greater than 0.5 is acceptable. Factor analysis has been applied after all the assumptions of applying the test were met. The number of variables to be extracted is determined by 'Latent Root Criterion' and 'Percentage of Variance Criterion'. In the former criterion, eigen values have been used and only those factors are considered significant having eigen value or latent root greater than 1, other items were deleted keeping in mind their insignificance. The later criterion is based on "achieving a specific cumulative percentage of total variance extracted by successive factors, with the sole purpose of explaining at least a specified amount of variance". There has not been adopted any threshold value, but for social sciences 60 percent of total variance is considered satisfactory (Hair et al., 2010). The results show only three factors are extracted meeting all the conditions of above criterion (Eigen value greater than 1 and cumulative percentage of variance 62.983 percent) from total variance explained in table. Scree plot has also confirmed these results.

Principal component analysis method has been applied for extraction and method of varimax for rotation. One item had been excluded for factor loadings below 0.50, which is the minimum value set as per sample size of 160 supported by Hair et al. (2010), to suppress factors. All other items of the construct are divided into three dimensions shown in the table of rotated component matrix. There are now eight items in first component, three each in the second and third. The results of factor analysis, with three dimensions of Human capital construct along with their pertaining items and factor loadings are shown in table 3.7. All the factors retained reflect the Education, Knowledge, Experience, and Skills

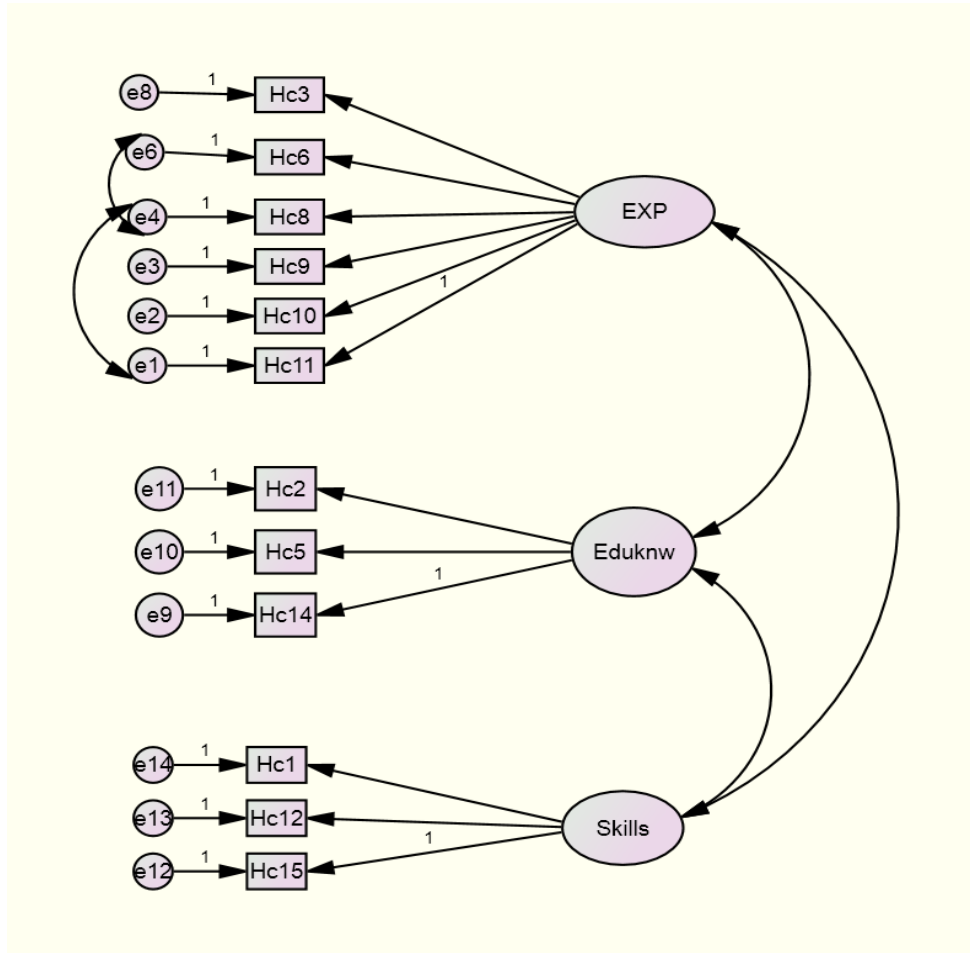
of employees for internationalization of the firm. Therefore, have been grouped under these headings. Some items reflecting Knowledge and Education have been shown along majority of items showing Experience of employees. Other items reflecting Knowledge and Education have been grouped together.

**Table 3.7. Human Capital Dimensions with Factor loadings**

| <b>Dimensions and items</b>  | <b>Factor Loadings</b> |
|--|------------------------|
| <b><i>Experience</i></b>   |                        |
| We utilize the international business experience of our employees in seeking opportunities in foreign markets.                                   | 0.777                  |
| In our firm, employees having knowledge about foreign markets are a source for spreading firm business into these markets.                       | 0.543                  |
| International business experiences of our employees assist us in entering foreign markets.   | 0.860                  |
| In our organization, highly educated employees are highly knowledgeable about firm's business.   | 0.563                  |
| We use international business experience of our employees to cope positively with technological changes prevailing in foreign markets.           | 0.674                  |
| International business experience of our employees assists us in adopting in foreign market environments.  | 0.521                  |
| We utilize international business experience of our employees in managing uncertain risks in foreign markets.                                    | 0.772                  |
| International business experience is of great assistance in internationalization of our firm.  | 0.847                  |
| <b><i>Education/Knowledge</i></b>  |                        |
| In our firm, highly educated employees are always eager to avail opportunities available in foreign markets.                                     | 0.839                  |
| In our firm, employees having knowledge about how to do business in foreign markets are a source for spreading firm business into these markets. | 0.723                  |
| Employee's higher level of education enables us to enter foreign markets easily  | 0.871                  |
| <b><i>Skills</i></b>   |                        |
| Our employees with international business skills help in locating the potential foreign markets for firm.  | 0.661                  |
| We utilize international business skills of our employees in executing business operations abroad.   | 0.735                  |
| We use international business skills of our employees in removing obstacles and accelerating internationalization process of our firm.           | 0.845                  |

For confirmation of exploratory factor analysis results, confirmatory factor analysis has been applied.

**Figure 3.3. CFA model for the construct of Human Capital**



The model did not show good fit indices when first it was run. Two items under the dimension ‘Experience’ with poor loadings were deleted before proceeding further. It was observed that after treating covariances between some error terms (e1 and e4, e4 and e6) as free parameters, good model fitness is possible. Therefore, same was done and model was run repeatedly, finally all good model fit indices were achieved as shown in Table 3.8, CMIN/DF = 2.370, RMR = 0.023, GFI (Goodness of Fit Index) = 0.901, AGFI (Adjusted Goodness of Fit) = 0.842, NFI (Normed Fit Index) = 0.883, CFI (Comparative Fit Index) = 0.928, RMSEA (Root Mean Square Error of Approximation) = 0.093, Chi-Square = 116.149 with df. minimum at 49.

**Table 3. 8 Model Fit Indices for Human Capital**

|                    | <i>1<sup>st</sup> Run</i> | <i>2<sup>nd</sup> Run</i> | <i>3<sup>rd</sup> Run</i> | <i>4<sup>th</sup> Run</i> |
|--------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| <b>Chi-Square.</b> | 301.1                     | 145.227                   | 125.236                   | 116.149                   |
| <b>Df.</b>         | 74                        | 51                        | 50                        | 49                        |
| <b>CMIN/DF</b>     | 4.069                     | 2.848                     | 2.505                     | 2.370                     |
| <b>RMR</b>         | 0.029                     | 0.023                     | 0.023                     | 0.023                     |
| <b>GFI</b>         | 0.800                     | 0.880                     | 0.892                     | 0.901                     |
| <b>AGFI</b>        | 0.717                     | 0.816                     | 0.831                     | 0.842                     |
| <b>NFI</b>         | 0.770                     | 0.854                     | 0.874                     | 0.901                     |
| <b>CFI</b>         | 0.814                     | 0.898                     | 0.919                     | 0.928                     |
| <b>RMSEA</b>       | 0.139                     | 0.108                     | 0.097                     | 0.093                     |

In the first run two items from under the ‘Experience’ dimension showed poor loading, therefore were omitted from further proceedings. In fourth run after treating covariances between error terms (1 and 4) and further (4 and 6) as free parameters a good model fit was achieved.

### **Reliability and Validity**

As the results of EFA are confirmed by CFA and a good model fit achieved, last and important stage pending was reliability and validity of scale drawn. Content validity has been already conducted at the initial stage. Now establishing construct validity involves empirical assessment of reliability and validity (convergent and discriminant). Convergent validity is measured by Composite Reliability (CR) and Average Variance Extracted (AVE) measures. Composite reliability is the measure of internal consistency of the construct in the scale, while Average Value Extracted (AVE) is the extent of the variance of variable which is explained by latent construct. Following conditions are met to establish convergent validity: Composite Reliability should be greater than 0.7, Average Variance Extracted (AVE) should be greater than 0.5, and Composite reliability should be greater than Average Variance Extracted, in each dimension of the construct. Composite Reliability and Average Variance Extracted has been calculated for each dimension shown in Table 3.9. In case of first dimension ‘Education/Knowledge’ CR = 0.839, and AVE =

0.643. Hence, CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. In case of second dimension 'Experience' CR = 0.874, and AVE = 0.544. CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. In the last dimension 'Skills' CR = 0.701, and AVE = 0.510. CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. Therefore, in all the three dimensions all the conditions are met, and Convergent validity is established.

Discriminant validity can be analyzed with the help of Average Variance Extracted (AVE), Average Shared Variance(ASV), and Maximum Shared Variance (MSV) measures of construct in a multi item scale After the good fit of CFA model, following conditions should be met to ensure discriminant validity: Average Variance Extracted (AVE) should be greater than 0.7, Average Variance Extracted (AVE) should be greater than Average Shared Variance (ASV), and Average Variance Extracted (AVE) should be greater than Maximum Shared Variance (MSV) for each dimension of the construct. Composite Reliability (CR), Average Variance Extracted (AVE), Average Shared Variance (ASV), and Maximum Shared Variance (MSV) has been calculated. Microsoft Excel-based validity concerns toolkit developed by Prof. Gakingston was used to determine Convergent and Discriminant validity statics, shown in table 3.9. For first dimension 'Education/Knowledge' AVE = 0.643, MSV = 0.154, ASV = 0.077. AVE is greater than 0.5, AVE is greater than ASV, and AVE is greater than MSV. In second dimension 'Experience' AVE = 0.544, MSV = 0.276, and ASV = 0.215. AVE is greater than 0.5, AVE is greater than ASV, and AVE is greater than MSV. In the third dimension 'Skills' AVE = 0.510, MSV = 0.276, and ASV = 0.138. AVE is greater than 0.5, AVE is greater than ASV, AVE is greater than MSV. Therefore, all the conditions are met and Discriminant validity for all the three dimensions is established.

**Table 3.9. Validity Measures of Human Capital**

| <b>Dimensions</b>          | <b>CR</b> | <b>AVE</b> | <b>MSV</b> | <b>ASV</b> |
|----------------------------|-----------|------------|------------|------------|
| <b>Education/Knowledge</b> | 0.839     | 0.643      | 0.154      | 0.077      |
| <b>Experience</b>          | 0.874     | 0.544      | 0.276      | 0.215      |
| <b>Skills</b>              | 0.701     | 0.510      | 0.276      | 0.138      |

After the Validity of the instrument was checked, Reliability has been checked for overall model and also dimension wise. Value of Cronbach's alpha for the first dimension 'Experience' = 0.880, 'Experience' = 0.789, and 'Skills'= 0.701. Combined all these dimensions constitute 12 items and Cronbach's alpha value shown is 0.855 shown in table 3.10.

**Table 3.10. Dimension wise Reliability of Human Capital**

| <b>Dimension</b>           | <b>No. of items</b> | <b>Cronbach's alpha</b> |
|----------------------------|---------------------|-------------------------|
| <b>Experience</b>          | 6                   | 0.880                   |
| <b>Education/Knowledge</b> | 3                   | 0.789                   |
| <b>Skills</b>              | 3                   | 0.701                   |
| <b>Overall model</b>       | 12                  | 0.855                   |

All the three constructs were found reliable as the Composite Reliability (CR) for all three constructs is above threshold value of 0.7, proving the reliability of constructs (Nunnally, 1978). In addition, Cronbach's alpha value for the dimensions (Education/Knowledge and Skills) is above 0.7, and for the dimension 'Experience' it is above 0.8. overall model shows Cronbach's alpha value above 0.8. Construct validity is established by good model fit with convergent and discriminant validity (O'Learly-Kelly and Vokurka, 1998). For all the three constructs, CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. Therefore, convergent validity is established (Hair et al., 2010; Kumar et al., 2014).

Values for Average Shared Variance (ASV) and Maximum Shared Variance (MSV) were calculated. For all the three constructs CR is greater than 0.7, AVE is greater than ASV, and AVE is greater than MSV, shown in table 3.9. So, therefore, discriminant validity is established (Hair et al., 2010; Kumar et al., 2010). In this way both the convergent validity and discriminant validity have been established for all the three constructs, therefore, construct validity of the scale is established.

### 3.3.2.1.3. Scale on Network Relationships

As suggestions incorporated after content validity, exploratory factor analysis was applied on the data collected from respondents for this scale. From the results of EFA, the appropriateness of factor analysis is determined by Correlation matrix of network relationships, as the visual inspection revealed all correlations greater than 0.30. Presence of correlation among variables of construct is tested by Bartlett’s test of Sphericity, which shows significant correlations in correlation matrix (P value is 0.000). Also sample adequacy is measured by Kaiser-Mayer-Olkin measure, the KMO value is 0.872 from Table 3.11. Indicates a meritorious sample adequacy.

**Table 3.11. KMO and Bartlett’s Test for Network Relationships**

|                    |                                 |
|--------------------|---------------------------------|
| KMO                | <b>0.872</b><br>P-value = 0.000 |
| Approx. Chi-Square | 836.673                         |
| Degree of Freedom  | 66                              |

The range of sample adequacy is between 0 to 1, but only greater than 0.5 is acceptable. Exploratory factor analysis has been applied after all its assumptions were met. The number of variables to be extracted was determined by ‘Latent Root Criterion’ and ‘Percentage of Variance Criterion’. In the former criterion, eigen values are used and only those factors are considered significant having eigen value or latent root greater than 1, other items were deleted due to their insignificance. The later criterion is based on



achieving a specific cumulative percentage of total variance extracted by successive factors, with the sole purpose of explaining at least a specified amount of variance. There has not been adopted any threshold value, but for social sciences 60 percent of total variance is considered satisfactory (Hair et al., 2010). The results show only three factors are extracted meeting all the conditions of above criterion (Eigen value greater than 1 and cumulative percentage of variance 60.254 percent) from total variance explained in table. Scree plot has also confirmed these results.

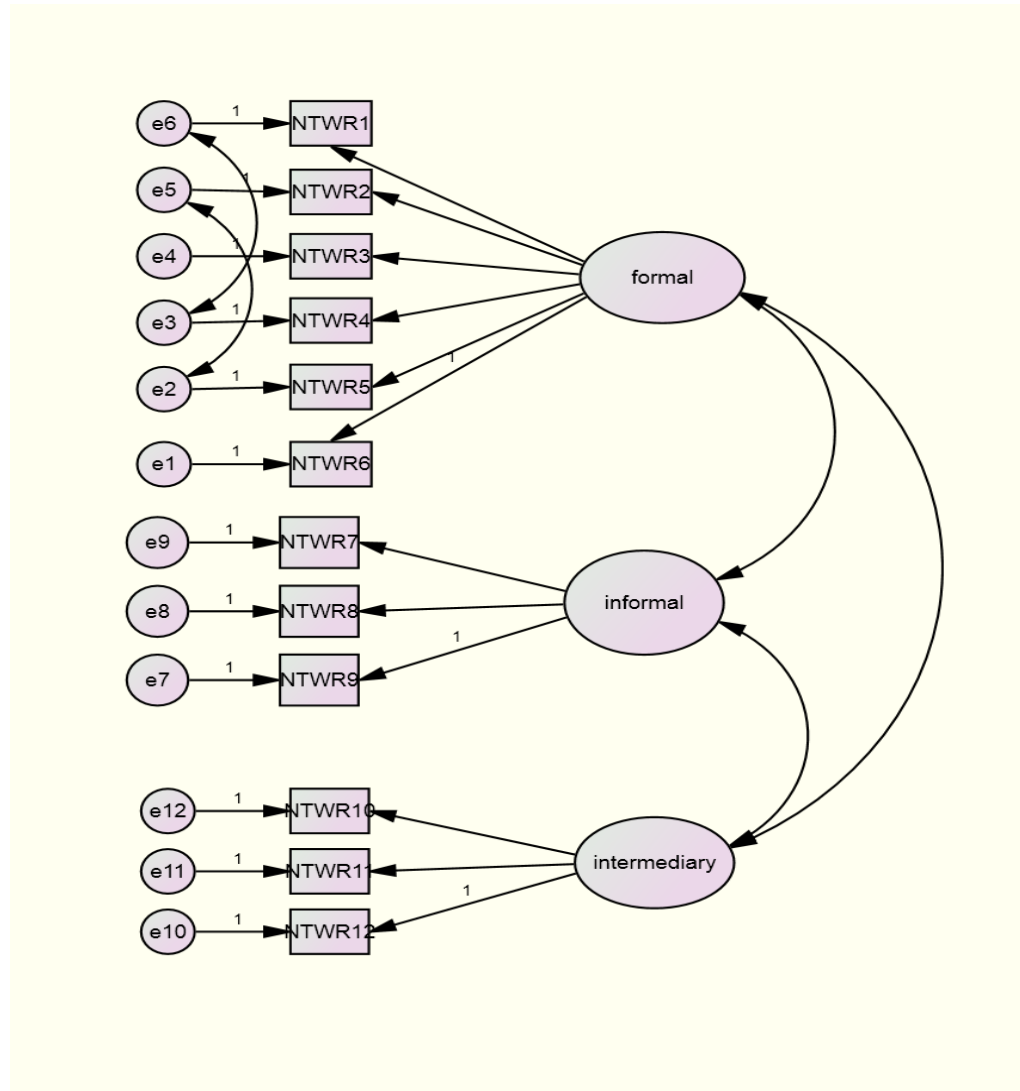
Principal component analysis method has been applied for extraction and method of varimax for rotation. three items had been excluded for factor loadings below 0.50, which is the minimum value set as per sample size of 160 supported by Hair et al. (2010), to suppress factors. All other items of the construct are divided into three dimensions shown in the table of rotated component matrix. There are now six items in first component, three each in the second and third. The results of factor analysis, with three dimensions of network relationships construct along with their pertaining items and factor loadings are shown in table 3.12. All the factors retained reflect the formal networks, informal networks, and intermediary networks for internationalization of the firm. Therefore, have been grouped under these headings. Half of the retained items are shown under formal category of networks, and next half divided in informal and intermediary networks.

**Table 3.12. Dimensions of Network relationships with their factor loadings**

| Dimensions and items  | Factor Loadings |
|---|-----------------|
| <b>Formal Networks</b>  |                 |
| Networks facilitate and accelerate our firm's internationalization process.   | 0.726           |
| Network relationships with customers, distributors and suppliers can open new opportunities for our firm in foreign markets.              | 0.632           |
| Our relationships with customers, distributors, suppliers and competitors assist us in entering foreign markets.                          | 0.745           |
| Network relationships with customers, distributors and suppliers provided a way to maximize our adaptability to our foreign environment.  | 0.593           |
| Our relationship with customers, distributors, and suppliers, enable us to access resources controlled by other firms in foreign markets. | 0.613           |
| We managed to cope with rapid technological changes with support of our network relationships with customers, distributors and suppliers. | 0.628           |
| <b>Informal Networks</b>  |                 |
| Our relationships with friends and family members assist us in entering foreign markets.  | 0.791           |
| Network relationships with friends and family help us in managing uncertainty risks in the foreign markets.                               | 0.789           |
| We feel safe in operating into foreign markets where we have prior friendship and/or existing family relationships.                       | 0.519           |
| <b>Intermediary Networks</b>  |                 |
| Our relationship with brokers assists us in entering foreign markets.   | 0.531           |
| Network relationships with brokers help our company in the planning and management of marketing in the foreign market.                    | 0.653           |
| We managed to integrate our communication structure in the foreign market from our network relationships with brokers.                    | 0.527           |

To confirm the results of exploratory analysis results, confirmatory factor analysis has been applied.

**Figure 3.4. CFA Model for construct of Network Relationships**



The model did not show good fit indices when first it was run. However, all the items under three dimensions of the construct have shown sufficient loadings to be carried forward, it was observed that after treating covariances between some error terms (e2 and e5, e3 and e6) as free parameters, good model fitness is possible. Therefore, same was done and model was run repeatedly, finally all good model fit indices were achieved as shown in Table 3.13, CMIN/DF = 2.391, RMR = 0.023, GFI (Goodness of Fit Index) = 0.908, AGFI (Adjusted Goodness of Fit) = 0.828, NFI (Normed Fit Index) =

0.900, CFI (Comparative Fit Index) = 0.909, RMSEA (Root Mean Square Error of Approximation) = 0.098, Chi-Square = 121.60 with df. minimum at 49.

**Table 3.13. Model Fit Indices for Network Relationships**

|                    | <i>1<sup>st</sup> Run</i> | <i>2<sup>nd</sup> Run</i> | <i>3<sup>rd</sup> Run</i> |
|--------------------|---------------------------|---------------------------|---------------------------|
| <b>Chi-Square.</b> | 178.3                     | 154.2                     | 121.6                     |
| <b>Df.</b>         | 51                        | 50                        | 49                        |
| <b>CMIN/DF</b>     | 3.495                     | 3.084                     | 2.391                     |
| <b>RMR</b>         | 0.029                     | 0.023                     | 0.023                     |
| <b>GFI</b>         | 0.835                     | 0.896                     | 0.908                     |
| <b>AGFI</b>        | 0.786                     | 0.821                     | 0.828                     |
| <b>NFI</b>         | 0.810                     | 0.877                     | 0.900                     |
| <b>CFI</b>         | 0.841                     | 0.891                     | 0.909                     |
| <b>RMSEA</b>       | 0.125                     | 0.103                     | 0.098                     |

All the items to dimensions showed sufficient loadings. In third run after treating covariances between error terms (2and 5) and further (3 and 6) as free parameters a good model fit was achieved.

### **Reliability and Validity**

CFA confirms the results of EFA and after a good model fit achieved, the final stage remains the reliability and validity of scale under development. Content validity has been already conducted at the initial stage. Now establishing construct validity involves empirical assessment of reliability and validity (convergent and discriminant). Convergent validity is measured by Composite Reliability (CR) and Average Variance Extracted (AVE) measures. Composite reliability is the measure of internal consistency of the construct in the scale, while Average Value Extracted (AVE) is the extent of the variance of variable which is explained by latent construct. Following conditions are met to establish convergent validity: Composite Reliability should be greater than 0.7, Average Variance Extracted (AVE) should be greater than 0.5, and Composite reliability should be greater than Average Variance Extracted, in each dimension of the construct. Composite Reliability and Average Variance Extracted has been calculated for each dimension shown

in Table 3.14. In case of first dimension 'Formal network relationships' CR = 0.817, and AVE = 0.621. Hence, CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. In case of second dimension 'Informal network relationships' CR = 0.835, and AVE = 0.533. CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. In the last dimension 'Intermediary network relationships' CR = 0.708, and AVE = 0.501. CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. Therefore, in all the three dimensions all the conditions are met, and Convergent validity is established.

Discriminant validity can be analyzed with the help of Average Variance Extracted (AVE), Average Shared Variance(ASV), and Maximum Shared Variance (MSV) measures of construct in a multi item scale After the good fit of CFA model, following conditions should be met to ensure discriminant validity: Average Variance Extracted (AVE) should be greater than 0.5, Average Variance Extracted (AVE) should be greater than Average Shared Variance (ASV), and Average Variance Extracted (AVE) should be greater than Maximum Shared Variance (MSV) for each dimension of the construct. Composite Reliability (CR), Average Variance Extracted (AVE), Average Shared Variance (ASV), and Maximum Shared Variance (MSV) has been calculated. Microsoft Excel-based validity concerns toolkit developed by Prof. Gakingston was used to determine Convergent and Discriminant validity statics, shown in table 3.14. For first dimension 'Formal network relationships' AVE = 0.621, MSV = 0.146, ASV = 0.075. AVE is greater than 0.5, AVE is greater than ASV, and AVE is greater than MSV. In second dimension 'Informal network relationships' AVE = 0.533, MSV = 0.269, and ASV = 0.212. AVE is greater than 0.5, AVE is greater than ASV, and AVE is greater than MSV. In the third dimension 'Intermediary network relationships' AVE = 0.501, MSV = 0.271, and ASV = 0.124. AVE is greater than 0.5, AVE is greater than ASV, AVE is greater than MSV. Therefore, all the conditions are met and Discriminant validity for all the three dimensions is established.

**Table 3.14. Validity Measures for Network Relationships**

| <i>Dimensions</i>            | <b>CR</b> | <b>AVE</b> | <b>MSV</b> | <b>ASV</b> |
|------------------------------|-----------|------------|------------|------------|
| <i>Formal Networks</i>       | 0.817     | 0.621      | 0.146      | 0.075      |
| <i>Informal Networks</i>     | 0.835     | 0.533      | 0.269      | 0.212      |
| <i>Intermediary Networks</i> | 0.708     | 0.501      | 0.271      | 0.124      |

After the Validity, Reliability has been checked both to the overall model and dimension wise. Value of Cronbach's alpha for the first dimension 'Formal network relationships' = 0.868, for second dimension 'Informal network relationships' = 0.757, and the third dimension 'Intermediary network relationships' = 0.709. Combined all these dimensions constitute 12 items and Cronbach's alpha value for overall construct is shown as 0.890, as shown in table 3.15.

**Table 3.15. Dimension wise Reliability of Network Relationships**

| <i>Dimension</i>             | <b>No. of items</b> | <b>Cronbach's alpha</b> |
|------------------------------|---------------------|-------------------------|
| <i>Formal Networks</i>       | 6                   | 0.868                   |
| <i>Informal Networks</i>     | 3                   | 0.757                   |
| <i>Intermediary Networks</i> | 3                   | 0.709                   |
| <i>Overall model</i>         | 12                  | 0.890                   |

All the three constructs were found reliable as the Composite Reliability (CR) for all three constructs is above threshold value of 0.7, proving the reliability of constructs (Nunnally, 1978). In addition, Cronbach's alpha value for the dimensions (Formal, informal, and Intermediary relationships) is above 0.7. overall model shows Cronbach's alpha value above 0.8. Construct validity is established by good model fit with convergent and discriminant validity (O'Learly-Kelly and Vokurka, 1998). For all the three constructs, CR is greater than 0.7, AVE is greater than 0.5, and CR is greater than AVE. Therefore, convergent validity is established (Hair et al., 2010; Kumar et al., 2014). Values for

Average Shared Variance (ASV) and Maximum Shared Variance (MSV) were calculated. For all the three constructs CR is greater than 0.7, AVE is greater than ASV, and AVE is greater than MSV, shown in table 3.14. So, therefore, discriminant validity is established (Hair et al., 2010; Kumar et al., 2010). In this way both the convergent validity and discriminant validity have been established for all the three constructs, therefore, construct validity of the scale is established.

### 3.3.3. Standardized Scales

In this study standardized scales have been used for entrepreneurial orientation, global mindset, government support, financial performance, and non-financial performance. All these scales were modified into Indian context and reliability has been checked by Cronbach's alpha. There is a thumb rule that for a measurement scale reliability is acceptable only when value of Cronbach's alpha is more than 0.70 (George and Mallery, 2003; DeVellis, 2016). In addition, Gliem and Gilem (2003) claimed high degree of consistency for a scale when its Cronbach's alpha value is more than the thrush-hold value of 0.70. The Cronbach's alpha value for all these scales, along with the total items used, is shown in table below 3.16.

**Table 3.16. Reliability of standardized scales**

| <b>Scale</b>                       | <b>Authors</b>          | <b>Total items used</b> | <b>Cronbach's alpha</b> |
|------------------------------------|-------------------------|-------------------------|-------------------------|
| <b>Entrepreneurial Orientation</b> | Covin and Slevin (1989) | 25                      | 0.763                   |
| <b>Global Mindset</b>              | Saad (2014)             | 12                      | 0.751                   |
| <b>Government Support</b>          | Saad (2014)             | 12                      | 0.743                   |
| <b>Financial Performance</b>       | Zahra and Gravis (2000) | 3                       | 0.701                   |
| <b>Non-financial Performance</b>   | Saad (2014)             | 11                      | 0.747                   |

Cronbach's alpha value for all the five scales above is more than the threshold value of 0.70, as suggested by Nunnally (1978), therefore, can be claimed that all these scales are reliable in this context and can be used to collect data for this study. Though, the number of items used varies from scale to scale, but, a systematic procedure has been followed by authors to retain these items against their constructs and all these items are relevant to the measurement of these constructs in context of the study.

### **3.4 Pilot Testing**

Main purpose of pilot testing is to check reliability and validity of the questionnaire or survey schedule instrument for final data collection. Instruments and questionnaires should go for pilot testing before applied to main data collection, to identify weakness and modifications necessary (Cooper and Schindler, 2003).

In the present study subjects were drawn from the target population of the study, and other testing conditions were considered in the same way proposed for final survey instrument. There is no condition to select respondents statistically. Pilot study has been conducted on a sample of 70 manufacturing SMEs in Punjab involved in international business by survey. The main purpose of conducting a pilot test was identification of unsuitability of measurement items to respondents, instructions and the time needed to complete survey instrument by respondents. Based on pilot study results total eight statements were deleted from the survey schedule, two statements from the construct of internationalization, three from the construct of human capital, and three from the construct of network relationships. In addition to this under the construct of internationalization the interval gaps between options on five-point likert scale were shortened. All the scales used in this study were found reliable and valid in pilot testing.

In addition, respondents were requested to give feedback on language used for items, confusion caused if anywhere, redundancy, length of instrument, and time required. Other contextual valuable suggestions were appreciated from respondents. Subsequently,



survey schedule has gone minor changes. Final instrument was tried to be simple, and a well-prepared instrument to collect data of better quality.

### **3.5 Data Collection Schedule**

Final survey schedule has been prepared by both self-developed scales on variables and standardized tools used for other variables. Instrument comprised total ninety-nine items measuring all the eight variables. It has been divided into three parts in order to make respondent understand better and feel convenient. Part first included all the five determining variables: entrepreneurial orientation, network relationships, global mindset, government support, and human capital. Part second included the items related to the main construct of internationalization. And the part third included two variables of firm performance, financial and non-financial performance.

## **CHAPTER 4**

### **FINDINGS, INTERPRETATION AND DISCUSSION**

This chapter begins with data audit, proceeds further with normality of the data, assessment of non-response bias, regression analysis to analyze first objective of the study, and structure equation modeling for analysis of objective second and third of the study. The chapter also discusses whether the hypotheses are accepted or rejected objective wise based on the findings of the study. The chapter ends with discussion on results. Results are discussed very specifically. Previous studies in support are also mentioned.

#### **4.1 Data Audit**

For analyzing raw data needs to be clearly coded and accurately entered into data file. The coded data has been transferred from survey schedule instrument one by one to data file in MS Excel, after examining into Excel file this data has been transferred into SPSS file. The entered data was audited for detecting errors made while entering this data (Cooper and Schindler, 2003).

All filled schedule instruments were checked one by one at the time of data collection, to make sure minimum of missing data can be obtained. Unanswered and half-filled instruments were identified and tried to get it filled accurately from the respective respondent. To ensure data cleanness, the completed data was processed through frequency distribution and missing data analysis, and no missing data has been found.

#### **4.2 Outlier Testing and Normality Assessment**

Outliers are the observations shown beyond the two extremes of data, these are characterized as unique and have a clear distinction from other observations (Hair et al., 2006). For first part of this study, in which multiple regression technique is used for analysis of the data, Cooks Distance test (Cooks D) has been applied. This test automatically reduces five percent of the extreme observations from the data file.

Other part of the study has been analyzed using structural equation modeling by AMOS. One of the assumptions for structural equation modeling is that variables should be distributed normally, therefore, makes it important to check its distribution before analyzing (Hair et al., 2006). Generally, the real-world data in social sciences at first is rarely normally distributed, which questions the generalizations of the results drawn from analysis of such data. There are two methods to bring non-normal data close to normality and compliance: transforming and outliers (Gao et al., 2008; Andreassen et al., 2006; Bollen, 1989; and Yuan et al., 2000; Bagley and Mokhtarian, 2000). Some techniques of transforming like square root, logarithm, box-cox on raw data helps in reduction of skewness and kurtosis of variables. However, in case of moderate and slight non-normality transforming has a least effect (Gao et al., 2008). Further, transformation does not assume linear relationships among variables, the model fit indices of hypothesized models are degraded after some of its variables are transformed. Thus, improvement of normality by transforming cannot lead to improvement in model fit in SEM. Therefore, relying on normality through transformation is not feasible in this study.

In contrast, outlier deletion lowers the skewness and kurtosis of variables on original data. In AMOS outliers are detected by Mahalanobis distances, which represents the distinction of observation from sample mean of all variables. Larger distances represent larger contributions of a particular observation towards departure from normality. Thus, deleting these observations will decrease both variable and multivariate kurtosis, outliers can be deleted until kurtosis is lowered up to desired level. Though deleting an outlier is loss of an observation, but the advantage over transformation is that assumption of linearity is retained (Gao et al., 2008).

In this part, the scale data was assessed for normal distribution, assessment of all the 99 items from 8 variables was done for departure from normality. The standard set by Hoogland and Boomsma (1999) for normality in structural equation modeling was used, as the overall absolute mean of skewness should be less than 0.75, and absolute mean of kurtosis should be less than 1.50. From the data set 21 observations with high Mahalanobis distance treated as outliers were deleted to achieve desired mean values for skewness and

kurtosis. After outlier deletion data having overall absolute mean of skewness 0.746, with highest skewness for INTR2 2.208, and lowest for EO6 0.002, and overall absolute mean of kurtosis 1.342, with highest kurtosis for GS10 3.095, and lowest for NTWR9 0.074, is shown in appendix I. In addition, after deletion of outliers from the data, Kolmogorov-Smirnov and Shapiri-Wilk tests has been applied on all the variables, to assess the normality. The null hypothesis for both the tests is ‘distribution of data is normal’ as the P-

**Table 4.1: Tests of Normality for all variables**

|                                    | Kolmogorov-Smirnov |     |         | Shapiro-Wilk |     |         |
|------------------------------------|--------------------|-----|---------|--------------|-----|---------|
|                                    | Statistic          | df  | P-Value | Statistic    | df  | P-Value |
| <b>Entrepreneurial Orientation</b> | 0.151              | 391 | 0.287   | 0.901        | 391 | 0.322   |
| <b>Network Relationships</b>       | 0.217              | 391 | 0.086   | 0.779        | 391 | 0.108   |
| <b>Global Mindset</b>              | 0.073              | 391 | 0.124   | 0.987        | 391 | 0.421   |
| <b>Government Support</b>          | 0.164              | 391 | 0.212   | 0.892        | 391 | 0.354   |
| <b>Human Capital</b>               | 0.165              | 391 | 0.348   | 0.846        | 391 | 0.323   |
| <b>Internationalization</b>        | 0.107              | 391 | 0.256   | 0.945        | 391 | 0.097   |
| <b>Financial Performance</b>       | 0.178              | 391 | 0.201   | 0.890        | 391 | 0.112   |
| <b>Non-Financial Performance</b>   | 0.154              | 391 | 0.411   | 0.880        | 391 | 0.106   |

value for all these variables in both the tests are greater than 0.05, at 95 percent of confidence level, the null hypothesis is accepted. Thus, it can be concluded that the distribution of the observations of the variables after deleting the outliers is normal. The results of these tests are shown in table 4.1. This meets the recommended standard for normality in structural equation modeling by Hoogland and Boomsma (1999).

### 4.3 Assessment of Non-Response Bias

When there exists a difference in responses between respondents from actual survey and sample respondents who have shown reluctance to participation, this is the problem of non-response bias (Malhotra, 2007). There can be many factors responsible for, but the contextual factors are mostly found responsible for non-response bias problem. To this study cause for non-response bias could be factors like time availability to owners and other officers dealing with international business operations of these firms in Punjab, as respondents of the study, less or no international business operations at a particular time (2016-17), fear of losing data to competitors, and unwillingness to participate in research studies.

In this study, assessment of non-response bias has been done by comparing early with late respondents, as recommended by Armstrong and Overton (1997). Respondents were divided into two groups those who took upto one week to fill all the questions were labelled as early respondents and those who took more than one week in filling all the questions were labelled as late respondents. Independent sample T-test has been used to compare means and standard deviation of these two groups of responses. Table 4.2 and 4.3 shows the means along standard deviation of respondents in two groups.

**Table 4.2 Group Statistics for Non-Response Bias**

| Respondent Type  | Mean    | Std. Deviation | Std. Error Mean |
|------------------|---------|----------------|-----------------|
| Early Respondent | 47.8273 | 25.29034       | 0.90787         |
| Late Respondent  | 46.6442 | 24.85246       | 0.49439         |

**Table 4.3 Independent Samples Test for Non Response Bias**

|                |                         | Levene's Test for Equality of Variances |         | t-test for Equality of Means |      |                 |                 |                       |   |        |
|----------------|-------------------------|---|---------|------------------------------|------|-----------------|-----------------|-----------------------|---|--------|
|                |                         | F                                       | P-Value | t                            | df   | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|                |                         |   |         |                              |      |                 |                 |                       | Lower                                     | Upper  |
| Response Score | Equal variances assumed | .183                                    | .669    | 1.155                        | 3301 | .248            | 1.18308         | 1.02422               | -.82510                                   | 3.1916 |

Here the null hypothesis for independent sample T-test is:

*There is no significant difference between the sample mean of two groups.*

Independent sample T-test is conducted in two stages. At first stage variance of two samples is compared, known as Levene's homogeneity test of variance. The null hypothesis of this test is 'equal variances assumed' means there is no significant difference between sample variances of two independent samples. This can be said as two samples are comparable. Table 4.2 shows that average response score for early respondents is 47.8273 with standard deviation 25.29034, and the average response score for late respondents is 46.6442 with standard deviation 24.85246. The difference between sample mean of these two groups is found very small. From the table 4.3 P-value for Levene's test of equality of variance is shown as 0.669, which is higher than 5 percent level of significance. Thus, the null hypothesis of 'equal sample variance' can be accepted. The results further show that the P-value of t-static is 0.248, which is also higher than 5 percent level of significance. Therefore, at 95 percent level of confidence the null hypothesis that equal response level of early and late respondents is accepted. Thus, can be concluded that average response of early and late respondents of the study is same. As indicated by results non-response bias is not a problem in this study.

#### 4.4 Assessment of Reliability

All the variable dependent, independent, and mediating were assessed for reliability. In table 4.4 reliability score both Cronbach's alpha and composite reliability (CR) has been shown for self-developed measurement scales, and Cronbach's alpha values for standardized scales used has been shown in table 4.5.

**Table 4.4: Reliability Measures of Developed Scales**

| <b>Variable</b>              | <b>Total items</b> | <b>Cronbach's alpha</b> | <b>CR value Dimension wise</b> | <b>Items deleted</b> |
|------------------------------|--------------------|-------------------------|--------------------------------|----------------------|
| <b>Internationalization</b>  | 12                 | 0.866                   | 0.856, 0.754, 0.861            | 2                    |
| <b>Human Capital</b>         | 12                 | 0.855                   | 0.839, 0.874, 0.701            | 3                    |
| <b>Network Relationships</b> | 12                 | 0.890                   | 0.817, 0.835, 0.708            | 3                    |

All the three dimensions of Internationalization are found reliable as the CR for all three dimensions is above threshold value of 0.7. In addition, Cronbach's alpha value for overall model is above 0.8, proving the reliability of these variables (Nunnally, 1978). Similarly, for the other two variables human capital and network relationships Cronbach's alpha for overall model is above 0.8 along with CR value for all their dimensions is above thrush hold value of 0.7, indicating reliability for all these self-developed measurement scales.

**Table 4.5: Reliability Measures of Standardized Scales**

| <b>Variable</b>                    | <b>Total items</b> | <b>Cronbach's alpha</b> | <b>Items deleted</b> |
|------------------------------------|--------------------|-------------------------|----------------------|
| <b>Entrepreneurial Orientation</b> | 25                 | 0.763                   | 0                    |
| <b>Global Mindset</b>              | 12                 | 0.751                   | 0                    |
| <b>Government Support</b>          | 12                 | 0.743                   | 0                    |
| <b>Financial Performance</b>       | 3                  | 0.701                   | 0                    |
| <b>Non-Financial Performance</b>   | 11                 | 0.747                   | 0                    |

In table 4.5 “Cronbach’s alpha” for all the five are above the thrush hold value of 0.7, none of the items from standardized scales was needed to be deleted to attain values above thrush-hold. This corresponds with minimum acceptable level set by Nunnally (1978). Therefore, all these scales can be considered reliable for this study.

#### **4.5. Evaluation of Model Fitness in Structural Equation Modeling**

As major part of this study is being examined by using structural equation modeling through AMOS, model fit remains always a primary goal in SEM. Researchers have been devising many fit indices for evaluating model fit on observed data from time to time (Hu and Bentler, 1999; Arbuckle and Wothke, 1999) but, researchers do not agree for a single index or a set of indices as a common measure of model fit (Maruyama, 1998). Evaluation of model fit on observed data cannot be relied on single index, more than one indices should be employed to evaluate good model fit (Anderson and Gerbing, 1988). In line with this, Kline (1998) recommended combination of four indices including Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), and Standardized Root Mean Square Residual (SRMR). However, Hair et al. (2006) tried to include an overall picture of model fit, reflecting a diversified criterion



recommended a set of indices covering all the absolute, incremental, and parsimonious indices. These model fit indices are summarized in tables of 4.6, 4.7, and 4.8.

### **Indices of Absolute Fit**

The Chi-square ( $\chi^2$ ) represents the estimated discrepancies between the covariances of proposed model and the expected covariances with theoretical back. It represents the test statistics of likelihood ratio. This is considered an important index in assessment of model fit, but, has been critically weighed for being much sample sensitive index (Joreskog and Sorborm, 1996). Hair et al. (2006) argued this index turns more sensitive when sample size is above 200. Thus, researchers have ruled out relying solely on this index for model fitness, but, has been used in combination of other indices to arrive at the decisions of accepting or rejecting the models.

Goodness of Fit Index (GFI) is another measure of absolute fit indices, this represents how variance and covariance is jointly explained by model (Byrne, 2010) pp.77. Its range is from 0 to 1. Zero indicates a poor fit, and 1 indicates a perfectly fit. Hair et al. (2006) has set the acceptance level 0.90 and above.

Another measure among absolute fit indices is the Root Mean Square Error of Approximation (RMSEA). This is the measurement for discrepancy in per degree of freedom. Though this index was proposed in 1980 by Steiger and Lind, but, has been recently recognized as one of the most important model fit indices. The error of approximation is taken into account by RMSEA with a question of “how well would the model, with unknown but optimally chosen parameter values, fit the population covariance matrix if it were available?” (Browne and Cudeck, 1993, pp. 137-138; Byrne, 2010, pp.80-81). RMSEA is very sensitive to complex models with number of estimated parameters. RMSEA values close to zero indicate lesser unexplained variances and covariances are present in the model. Hair et al. (2006) has recommended RMSEA value from 0.05 to 0.08 in acceptable range for good model fit. However, Hu and Bentler (1999) suggested values of 0.06 and close to it indicate good fit of hypothesized model on observed data.

**Table 4.6: Summary of Absolute Fit Indices**

| Index Name                                      | Level of Acceptance |
|---|---------------------|
| Chi-square ( $\chi^2$ ).                        | $P < 0.05$          |
| Goodness of Fit (GFI)                           | 0.9 and above       |
| Root Mean Square Error of Approximation (RMSEA) | 0.05 to 0.08        |

**Indices of Incremental Fit**

Normed Fit Index (NFI) proposed by Bentler and Bonnet (1980) was the preferred choice of researchers for half of a decade as evidenced from literature (Byrne, 2010, pp.78-79). However, tendency of this index for underestimating model fit in small sample sizes was a worrisome. Bentler (1990) proposed Comparative Fit Index (CFI) as a revision of NFI with sample size into account. CFI indicates comparison of hypothesized model with the independence or null model, or predicted covariance matrix is compared with observed covariance matrix in the model. Both the indices have values in range of 0 to 1, 0 means a poor fit and 1 means perfectly fit. Hair et al. (2006) has recommended values of 0.90 and above as acceptable for good model fit.

**Table 4.7: Summary of Incremental Fit Indices**

| Index Name                    | Acceptance Level | Value comments  |
|-------------------------------|------------------|---|
| “Normed Fit Index (NFI)”      | 0.90 and above   | “Values close to 0 indicates poor fit, and close to 1 indicates good fit”.        |
| “Comparative Fit Index (CFI)” | 0.90 and above   | “Values close to 0 indicates poor fit, and values close to 1 indicates good fit”. |

### **Parsimonious Fit Indices**

Researchers have been trying to address the limitations of  $\chi^2$  to come up with a goodness of fit indices, which will involve more pragmatic approach to the evaluation process. Last few decades many new fit indices being developed, with uniqueness in approach of model fitting process (e.g., Marsh, Balla and McDonald, 1988; Tanaka, 1993; Gerbing and Anderson, 1993; Hu and Bentler, 1995).  $\chi^2 / \text{degree of freedom}$  also written as CMIN/DF is the first among these fit statistics in addressing of this problem (Byrne, 2010, pp.76-77). Parsimony of the proposed model is being tested by this index, model fit is evaluated by number of estimated coefficients required for achieving model fit level (Hair et al., 2006). Hair et al. (2006) has recommended the acceptable range for  $\chi^2/\text{df}$  value as less than 2.0, Tabachnick and Fidell (2007) has also recommended the same range. However, Chin and Todd (1995) have given more liberty in upper limits and recommended acceptable for goof fit up to less than 5.0. But, in general values below 3.0 are considered acceptable.

**Table 4.8: Summary of Parsimonious Fit Indices**

| Index Name                                 | Acceptance level | Value comments   |
|--|------------------|--|
| “Normed Chi-square ( $\chi^2/\text{df}$ )” | 1.0 to 5.0       | Limits can be as low as 1.0 and can be as high as 3.0. (5.0 in extreme cases). |

The other fit indices used in this study are: Degree of freedom, RMR, and AGFI. Root Mean square Residual (RMR) at standardized level represents the average value across all standardized residuals, and its value falls in the range of 0 to 1.0. Its value should be less than 0.05 for a good fit model. Adjusted Goodness of Fit Index (AGFI) is in slight difference from GFI by adjusting number of degrees of freedom in the itemized model. It exhibits characteristics for both parsimonious and absolute fit indices. The values for AGFI range from 0 to 1.0, close to 0 indicating a poor fit and closer to 1.0 indicating a good model fit.

After assessing all the all the above indices for their role in exhibiting model fitness in different dimensions, it has been decided not to use a single index or a few indices for evaluating model fitness in this study, rather a combination of all the three categories of indices absolute, incremental, and parsimonious, along with the above mentioned three indices will be used to make a balanced view of model fitness exhibiting al its dimensions.

#### **4.6 Effects of Entrepreneurial Orientation, Global Mindset, Network Relationships, Government support and Human Capital on Internationalization.**

In the process of analysis, in first phase multiple regression analysis has been applied on six constructs viz: Internationalization, Entrepreneurial orientation, Global mindset, Network relationships, Government support, and Human capital. Internationalization has been taken as dependent variable, while entrepreneurial orientation, global mindset, network relationships, government support, and human capital are taken as independent variables. While analyzing relationship through regression, there are chances of non-supportive observations present in the data set with high estimated residuals, these types of observations are commonly known as multivariate outliers. To identify multivariate outliers in the data set Cook's distance or Cook's D test has been used. This test identifies and removes five percent of observations from original data set having highest values of Cook's D.

After outliers removed through Cook's D, multiple regression analysis was applied on that data set. After the outliers removed, the sample size has been reduced to 391 from 412 which means 21 observations has been considered as multivariate outliers and therefore removed.

Regression analysis studies the dependence between variables. Dependence of one variable called 'dependent variable' on other variable or variables called 'independent variables'. It estimates the expected values of dependent variable with the help of known values of independent variable or variables. The dependent variable is considered as 'stochastic variable' whereas independent variable as 'deterministic variable'. Multiple regression analysis studies the relationship between multiple independent variables and a

single dependent variable. After Multiple regression analysis applied the following results were obtained

**Table 4.9: ANNOVA and Model Summary Values**

| R     | R Square | Adjusted R Square | Durbin-Watson | ANNOVA                  |
|-------|----------|-------------------|---------------|-------------------------|
| 0.617 | 0.381    | 0.373             | 1.891         | F = 47.358<br>P = 0.000 |

Before proceeding for interpretation of other tables, it is necessary to check whether the overall regression model is statistically fit or not. The F-statistics under ANNOVA in table 4.9 represents the measure of statistical fit of regression model. Higher values of F-statistics represent better model fitness. At the set confidence level of 95 percent, if p-value of F-statistics is found more than 0.05, the regression model cannot be considered fit. From the above ANNOVA table F-statistics is 47.358, and p-value is found 0.00 which is less than 0.05. Therefore, at 95 percent confidence level, the null hypothesis of poor fit is not accepted, hence overall regression model is considered as a good fit.

As overall regression model has been found good fit, now can be proceeded for interpretation of other tables from analysis. The sametable above represents the model summary containing the values for R, R Square, and Adjusted R Square with Durbin-Watson values. The R value indicates coefficient of multiple correlation. In the above table coefficient of multiple correlation is 0.617. R Square is the coefficient of determination, indicating the percentage of variance in dependent variable due to variations in independent variable. This is also referred as effect size. But, in case of multiple regression effect size is shown by Adjusted R Square instead of R Square. In above model summary table, the value of Adjusted R Square is 0.373, which means 37.3 percent change in dependent variable (Internationalization) is caused by all the independent variables (Entrepreneurial orientation, Global mindset, Network relationships, Government support, and Human capital) collectively.

Regression model works on the assumption that error terms of observations should not be correlated or independence of observations. Any violation of this condition is known as autocorrelation. To measure presence of autocorrelation problem in regression model Durbin-Watson statistic measures are checked. The static of Durbin-Watson ranges from 0 to 4. The ideal value for this is considered 2 or values close to it, values very below to the midpoint 2 means problem of positive autocorrelation in model and values extremely above 2 means problem of negative autocorrelation in model. In the above model summary table Durbin-Watson values are 1.891, which is very close to the midpoint 2, hence indicating regression model somewhat free from autocorrelation problem.

**Table 4.10: Coefficients of Independent Variables**

| <b>Model</b>                       | <b>Unstandardized Coefficients (B)</b> | <b>Standardized Coefficients (Beta)</b> | <b>T value</b> | <b>P-value</b> |
|------------------------------------|--|---|----------------|----------------|
| <b>Constant</b>                    | -14.358                                |   | -3.526         | 0.000          |
| <b>Entrepreneurial Orientation</b> | 0.107                                  | 0.151                                   | 2.738          | 0.006          |
| <b>Network Relationships</b>       | 0.189                                  | 0.256                                   | 4.713          | 0.000          |
| <b>Global Mindset</b>              | 0.118                                  | 0.118                                   | 2.612          | 0.009          |
| <b>Government Support</b>          | 0.148                                  | 0.099                                   | 2.031          | 0.043          |
| <b>Human Capital</b>               | 0.304                                  | 0.172                                   | 3.004          | 0.003          |

The table of coefficients as table 4.10 shows two types of coefficients Intercept (alpha) and slope coefficient (beta). The value of alpha which is represented through

constant is a hypothetical value of dependent variable when other things are taken as constant or there is no effect from independent variables. Constant value is considered the value of dependent variable when independent variables are taken as zero. In the table of Coefficients, the value of intercept or constant is -14.358.

The slope coefficient represents the impact of independent variable on dependent variable. It is the rate of change of dependent variable with respect to a unitary change in independent variable. In the coefficients table of regression output there are two types of slope coefficients Standardized beta and unstandardized beta. When 'Z' scores of dependent and independent variables are used in analysis of regression model, the calculated slope coefficients are reported by standardized beta coefficients. When original observations of dependent and independent variables are used in analyzing the regression model, the estimated coefficients are known as unstandardized slope coefficient. From the table above the unstandardized beta values for all independent variables are as: Entrepreneurial orientation = 0.107, Network relationships = 0.189, Global mindset = 0.118, Government support = 0.148, and Human capital = 0.304.

The T statistics from the table tests the null hypotheses that there is no significant impact of each independent variable individually on dependent variable (Entrepreneurial orientation on Internationalization, Global mindset on Internationalization, Network relationships on Internationalization, Government support on Internationalization, and Human capital on Internationalization). The P-value for T statistic against each independent variable is found less than 0.05, therefore, at 95 percent confidence level the null hypotheses for each independent variable cannot be accepted. Hence, can be concluded that each independent variable has a significant impact on dependent variable 'Internationalization'. The regression equation can be drawn as:

$$\text{Internationalization} = -14.358 + 0.107(\text{Entrepreneurial orientation}) + 0.189(\text{Network relationships}) + 0.118(\text{Global mindset}) + 0.148(\text{Government support}) + 0.304(\text{Human capital}) + 4.04006(\text{error}).$$

While interpreting this equation it can be claimed that with increase in entrepreneurial orientation internationalization will also increase, when other things are taken constant.

Similarly, for other independent variables, with increase in network relationships will increase internationalization, with increase in global mindset internationalization will get increased, with increase in government support internationalization will be further increased, and with increase in human capital internationalization will be increased. In every individual case of independent variables other things are taken constant.

In the second phase, to investigate the impact of each independent variable separately on dependent variable ‘Internationalization’, stepwise regression analysis has been applied. The beauty of this technique is that in addition to separate impact of each independent variable, it calculates how much the impact of previous variable is being influenced with addition of another variable to the model. Stepwise regression has been applied on the same data set on which multiple regression analysis with Cook’s Distance was applied. The following results were obtained.

**Table 4.11: Variables Entered/Removed for Linear Regression**

| Model | Variables Entered                  | Variables Removed | Method  |
|-------|------------------------------------|-------------------|---|
| 1     | <b>Entrepreneurial Orientation</b> |                   | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 2     | <b>Network Relationships</b>       |                   | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 3     | <b>Government Support</b>          |                   | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 4     | <b>Global Mindset</b>              |                   | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |
| 5     | <b>Human Capital</b>               |                   | Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). |



The table 4.11 shows how many independent variables has been entered for analysis. All the entered variables are shown in the left-hand column of table. This technique automatically removes those variables which have no impact on dependent variable and shows them under the middle column headed with variables removed in the table. The table above shows no variable/variables has been removed from the analysis, therefore, it is assumed all the five (Entrepreneurial orientation, Network relationships, Global mindset, Government support, and Human capital) entered variables are having an impact on Internationalization which is dependent variable.

**Table 4.12: Model Summary for Linear Regression**

| <b>Model</b> | <b>R</b> | <b>R Square</b> | <b>Adjusted R square</b> | <b>Durbin-Watson</b> |
|--------------|----------|-----------------|--------------------------|----------------------|
| 1            | 0.478    | 0.228           | 0.226                    |                      |
| 2            | 0.543    | 0.294           | 0.291                    |                      |
| 3            | 0.575    | 0.330           | 0.325                    |                      |
| 4            | 0.592    | 0.350           | 0.344                    |                      |
| 5            | 0.599    | 0.359           | 0.351                    | 1.835                |

The model summary in table 4.12 shows the values of R, R square, Adjusted R square separately for each independent variable along with Durbin-Watson score. The table shows correlation coefficients for independent variables as: Entrepreneurial orientation (0.478), Network relationships (0.543), Government support (0.575), Global mindset (0.592), and Human capital (0.599). Similarly, R square value which is the effect size for each independent variable has been shown as: Entrepreneurial orientation (22.6%), Network relationships (29.4%), Government support (33.0%), Global mindset (35.0%), and Human capital (35.1%).

**Table 4.13: ANNOVA for Linear Regression**

| <b>Model</b> |            | <b>Sum of Squares</b> | <b>df</b> | <b>Mean Square</b> | <b>F</b> | <b>P-value</b> |
|--------------|------------|-----------------------|-----------|--------------------|----------|----------------|
| 1            | Regression | 3071.334              | 1         | 3071.334           | 121.135  | <b>0.000</b>   |
|              | Residual   | 10395.431             | 410       | 25.355             |          |                |
|              | Total      | 13466.765             | 411       |                    |          |                |
| 2            | Regression | 3964.420              | 2         | 1982.210           | 85.318   | <b>0.000</b>   |
|              | Residual   | 9502.345              | 409       | 23.233             |          |                |
|              | Total      | 13466.765             | 411       |                    |          |                |
| 3            | Regression | 4446.595              | 3         | 1482.198           | 67.043   | <b>0.000</b>   |
|              | Residual   | 9020.170              | 408       | 22.108             |          |                |
|              | Total      | 13466.765             | 411       |                    |          |                |
| 4            | Regression | 4714.033              | 4         | 1178.508           | 54.800   | <b>0.000</b>   |
|              | Residual   | 8752.732              | 407       | 21.505             |          |                |
|              | Total      | 13466.765             | 411       |                    |          |                |
| 5            | Regression | 4834.427              | 5         | 966.885            | 45.475   | <b>0.000</b>   |
|              | Residual   | 8632.337              | 406       | 21.262             |          |                |
|              | Total      | 13466.765             | 411       |                    |          |                |

From the model summary in table 4.12, it has been shown that all the independent variables impact ‘Internationalization’ positively, but it becomes necessary to check whether this impact is statistically significant or not. From the ANNOVA summary in table 4.13, it is found that P-value for F statistics for each independent variable is less than 0.05. Therefore, statistical significance for the positive impact shown by all these independent variables is established.

**Table 4.14: Coefficients of Linear Regression**

| <b>Model</b>   | <b>Standardized Coefficients (B)</b>                 | <b>Unstandardized Coefficients (Beta)</b> | <b>T Value</b>                                      | <b>P-value</b>                                     |
|--|--|---|---|--|
| 1<br>(Constant)<br>Entrepreneurial Orientation   | -5.732<br>0.378                                      |   | -1.618<br>11.006                                    | 0.107<br>0.000                                     |
| 2<br>(Constant)<br>Entrepreneurial Orientation<br>Network Relationships  | -3.488<br>0.245<br>0.231                             |   | -1.022<br>6.230<br>6.200                            | 0.307<br>0.000<br>0.000                            |
| 3<br>(Constant)<br>Entrepreneurial Orientation<br>Network Relationships<br>Government Support                                    | -9.056<br>0.210<br>0.178<br>0.312                    |   | -2.562<br>5.372<br>4.674<br>4.670                   | 0.001<br>0.000<br>0.000<br>0.000                   |
| 4<br>(Constant)<br>Entrepreneurial Orientation<br>Network Relationships<br>Government Support<br>Global Mindset                  | -12.078<br>0.165<br>0.169<br>0.301<br>0.174          |   | -3.364<br>4.071<br>4.507<br>4.564<br>4.526          | 0.001<br>0.000<br>0.000<br>0.000<br>0.000          |
| 5<br>(Constant)<br>Entrepreneurial Orientation<br>Network relationships<br>Government Support<br>Global Mindset<br>Human Capital | -18.094<br>0.130<br>0.148<br>0.266<br>0.156<br>0.248 |   | -4.136<br>3.016<br>3.831<br>3.964<br>3.141<br>2.380 | 0.000<br>0.003<br>0.000<br>0.000<br>0.002<br>0.018 |

In coefficients table as table 4.14 shows the beta values for independent variables, which is the rate of change of dependent variable due to change in independent variable. This table calculates the change in impact of previous variable/variables with in introduction of new independent variable for all the five variables in five steps, along with T static and their significance values. The unstandardized beta value for entrepreneurial orientation is (0.378) when other four variables have no influence. But when another variable network relationships is introduced in the model the beta value of entrepreneurial

orientation gets reduced to (0.245). Similarly, with the introduction of another independent variable government support, the beta value of entrepreneurial orientation and network relationships gets further reduced up to (0.210) and (0.178) respectively. In the fourth step, when another variable global mindset is introduced in the model, the beta values for all the previous three variables is further reduced. Similarly, with introduction of human capital in model all the previous four variables show further reduction in their beta values. It is important to mention here that none of the independent variable is having negative impact on dependent variable 'internationalization'. Further, in all the five steps for all the variable entered, their P-values for T statistics are less than 0.05. At 95 percent confidence all the five independent variables are having positive and significant impact on 'internationalization'. Therefore, due to positive and significant impact of all the independent variables on dependent variable, none of the independent variables have been shown removed from the model.

Thus, results from both multiple regression analysis and stepwise regression analysis have been cross checked and claimed that all the five variables viz: Entrepreneurial orientation, network relationships, global mindset, government support, and human capital positively and significantly affect Internationalization of SMEs. The treatment for hypotheses drawn earlier will be as follows:

**H1: Entrepreneurial Orientation has positive effect on Internationalization.**

This hypothesis is accepted.

**H2: Global Mindset has positive effect on Internationalization.**

This hypothesis is accepted.

**H3: Network Relationships have positive effect on Internationalization.**

This hypothesis is accepted.

**H4: Government Support positive effect on Internationalization.**

This hypothesis is accepted.

**H5: Human Capital has positive effect on Internationalization.**

This hypothesis is accepted.

#### **4.7. Effect of Internationalization on Firm Performance.**

Firm performance has been measured under two headings financial performance and non-financial performance. Structural Equation Modeling through AMOS has been used to analyze effects of Internationalization on firm's financial and non-financial performance in separate models in first phase, and both together in an integrative model in second phase.

Hypothesized relationships are presented through path diagrams in structural equation modeling. The figure 4.1 shows the relationship between internationalization and financial performance. It consists of two variables 'internationalization' as exogenous variable and 'financial performance' as endogenous variable. The single headed arrow from exogenous variable which is internationalization to endogenous variable which is financial performance shows the dependence of one variable on another. In the path diagram single headed arrow from 'internationalization' to 'financial performance' is the hypothesized direct relationship between these variables. The relationship in path diagram has shown model fit indices with in the recommended range as: CMIN/DF = 2.838, RMR = 0.23, GFI = 0.903, AGFI = 0.857, NFI = 0.916, CFI = 0.936, RMSEA = 0.063. with overall model fit with probability level = 0.000. Therefore, it can be concluded that it is a good model fit. It is important to mention here that all the above model fit indices were achieved after modification indices section of output analysis has recommended drawing covariances between following error terms of Internationalization variable. e12-e9, e11-e8, e10-e7, e6-e5, e6-e3, e3-e2.

The results of the path diagram are used to examine the hypothesized relationship between the variables. The summary of standardized parameter estimates is provided in table 4.15, and the summary of standard error, critical ratio, and P-value for these estimates are provided in table 4.16.

Table 4.15 shows parameter estimate value for financial performance over internationalization 0.395, which indicates a positive dependence of financial performance on internationalization. From Table 4.16, Critical value for this relationship is 6.228, and its P-value is less than 0.05. Therefore, a positive and significant relationship between

internationalization and financial performance can be seen, in other words financial performance has a strong dependence on internationalization. All other parameters on both the variables have also shown P-value less than 0.05, indicating the relevance of these paths to model, evidenced from their significance.

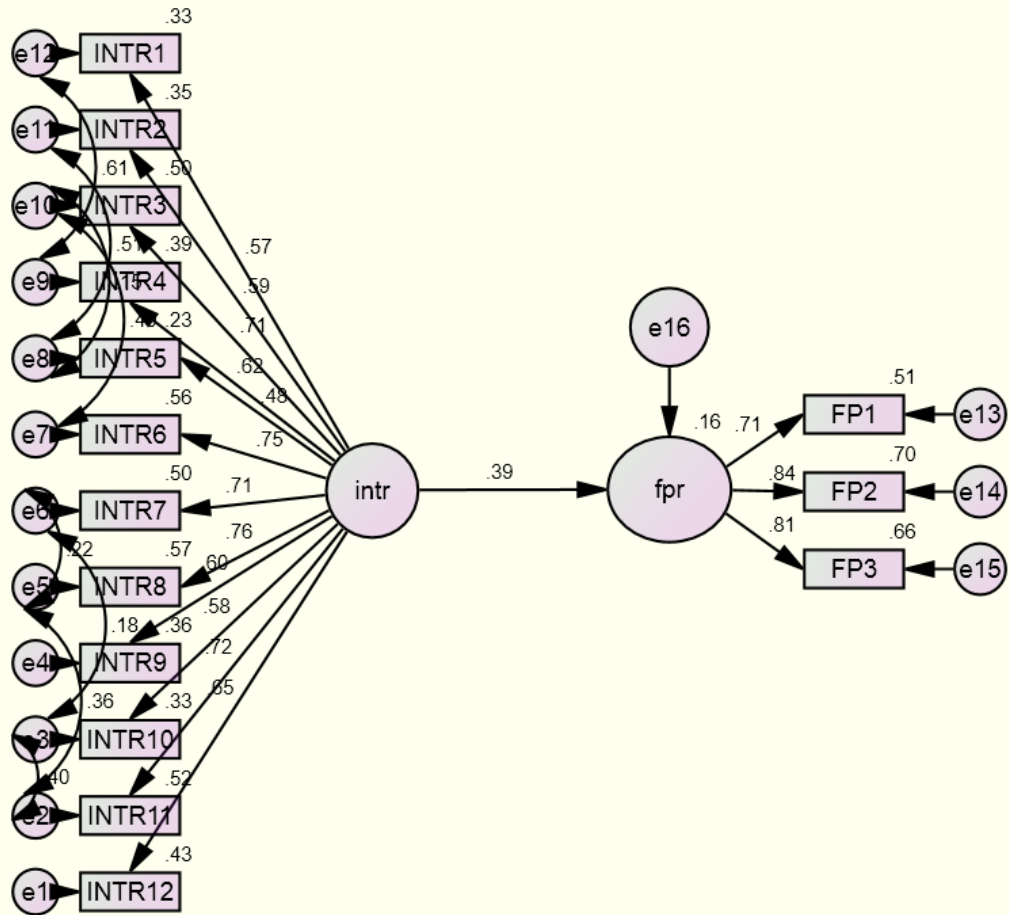
**4.15: Standardized Regression Weights: (Internationalization vs Financial Performance Model)**

|                              |                                  | <b>Estimate</b> |
|------------------------------|----------------------------------|-----------------|
| <b>Financial Performance</b> | <--- <b>Internationalization</b> | <b>.395</b>     |
| INTR12                       | <--- Internationalization        | .652            |
| INTR11                       | <--- Internationalization        | .724            |
| INTR10                       | <--- Internationalization        | .576            |
| INTR9                        | <--- Internationalization        | .597            |
| INTR8                        | <--- Internationalization        | .757            |
| INTR7                        | <--- Internationalization        | .709            |
| INTR6                        | <--- Internationalization        | .749            |
| INTR5                        | <--- Internationalization        | .476            |
| INTR4                        | <--- Internationalization        | .621            |
| INTR3                        | <--- Internationalization        | .705            |
| INTR2                        | <--- Internationalization        | .590            |
| INTR1                        | <--- Internationalization        | .571            |
| FP1                          | <--- Financial Performance       | .713            |
| FP2                          | <--- Financial Performance       | .838            |
| FP3                          | <--- Financial Performance       | .813            |

**Table 4.16: Regression weights: (Internationalization vs Financial Performance)**

|                              |      |                             | Estimate    | S.E.        | C.R.         | P          | Label         |
|------------------------------|------|-----------------------------|-------------|-------------|--------------|------------|---------------|
| <b>Financial Performance</b> | <--- | <b>Internationalization</b> | <b>.505</b> | <b>.081</b> | <b>6.228</b> | <b>***</b> | <b>par_14</b> |
| INTR12                       | <--- | Internationalization        | 1.000       |             |              |            |               |
| INTR11                       | <--- | Internationalization        | 1.217       | .101        | 12.020       | ***        | par_1         |
| INTR10                       | <--- | Internationalization        | .938        | .096        | 9.744        | ***        | par_2         |
| INTR9                        | <--- | Internationalization        | .719        | .069        | 10.492       | ***        | par_3         |
| INTR8                        | <--- | Internationalization        | 1.150       | .092        | 12.519       | ***        | par_4         |
| INTR7                        | <--- | Internationalization        | 1.067       | .092        | 11.657       | ***        | par_5         |
| INTR6                        | <--- | Internationalization        | 1.255       | .097        | 12.890       | ***        | par_6         |
| INTR5                        | <--- | Internationalization        | .796        | .092        | 8.611        | ***        | par_7         |
| INTR4                        | <--- | Internationalization        | .924        | .088        | 10.501       | ***        | par_8         |
| INTR3                        | <--- | Internationalization        | 1.076       | .087        | 12.357       | ***        | par_9         |
| INTR2                        | <--- | Internationalization        | .765        | .074        | 10.356       | ***        | par_10        |
| INTR1                        | <--- | Internationalization        | .794        | .082        | 9.705        | ***        | par_11        |
| FP1                          | <--- | Financial Performance       | 1.000       |             |              |            |               |
| FP2                          | <--- | Financial Performance       | 1.394       | .098        | 14.257       | ***        | par_12        |
| FP3                          | <--- | Financial Performance       | 1.004       | .072        | 14.011       | ***        | par_13        |

**Figure 4.1: The Path diagram for hypothesized relationship of Intenationalization and Financial Performance**





In order to analyze the relationship between internationalization and non-financial performance, similar path diagram has been drawn using structural equation modeling and the hypothesized relationship presented through it. Figure 4.2 shows the path diagram for hypothesized relationship between internationalization and non-financial performance. Internationalization remains the exogenous variable as in the previous case, but, endogenous variable is now 'non-financial performance'. The single headed arrow from internationalization to non-financial performance shows the dependence of non-financial performance on internationalization. In the path diagram the single headed arrow is the hypothesized direct relationship between these variables. The model fit indices for this path diagram are found in recommended range as: CMIN/DF = 2.653, RMR = 0.027, GFI = 0.902, AGFI = 0.857, NFI = 0.900, CFI = 0.912, RMSEA = 0.063. with Chi-Square = 573.063, Degree of Freedom = 216, and probability level = 0.000. All these indices represent a good model fit. The above model fit indices were achieved after Modification indices section of output analysis has recommended drawing covariances between following error terms of Internationalization variable. e12-e9, e11-e8, e10-e7, e6-e3, e3-e2, e5-e2, e17-e18, e17-e19, e17-e22, e17-e24, e20-e22, e23-e25.

The results of the path diagram are used to examine the hypothesized relationship between the variables. The summary of standardized parameter estimates is provided in table 4.17, and the summary of standard error, critical ratio, and P-value for these estimates are provided in table 4.18.

Table 4.17 shows parameter estimate value for non-financial performance over internationalization 0.747, which means a high dependence of financial performance on internationalization, from Table 4.18, Critical value for this relationship is 8.318, and its P-value is less than 0.05. Therefore, high positive and significant relationship between internationalization and non-financial performance can be claimed, in other words non-financial performance has a strong dependence on internationalization. All other parameters on both the variables have also shown P-value less than 0.05, indicating the relevance of these paths to model, evidenced from their significance.

**Table 4.17: Standardized Regression Weights: (Internationalization vs Non-Financial Performance Model)**

|                          |                                | <b>Estimate</b> |
|--------------------------|--------------------------------|-----------------|
| NonFinancial Performance | <--- Internationalization      | .747            |
| INTR12                   | <--- Internationalization      | .670            |
| INTR11                   | <--- Internationalization      | .707            |
| INTR10                   | <--- Internationalization      | .545            |
| INTR9                    | <--- Internationalization      | .603            |
| INTR8                    | <--- Internationalization      | .761            |
| INTR7                    | <--- Internationalization      | .724            |
| INTR6                    | <--- Internationalization      | .729            |
| INTR5                    | <--- Internationalization      | .511            |
| INTR4                    | <--- Internationalization      | .608            |
| INTR3                    | <--- Internationalization      | .708            |
| INTR2                    | <--- Internationalization      | .612            |
| INTR1                    | <--- Internationalization      | .570            |
| NFP1                     | <--- Non-Financial Performance | .505            |
| NFP2                     | <--- Non-Financial Performance | .246            |
| NFP3                     | <--- Non-Financial Performance | .410            |
| NFP4                     | <--- Non-Financial Performance | .712            |
| NFP5                     | <--- Non-Financial Performance | .616            |
| NFP6                     | <--- Non-Financial Performance | .456            |
| NFP7                     | <--- Non-Financial Performance | .565            |
| NFP8                     | <--- Non-Financial Performance | .300            |

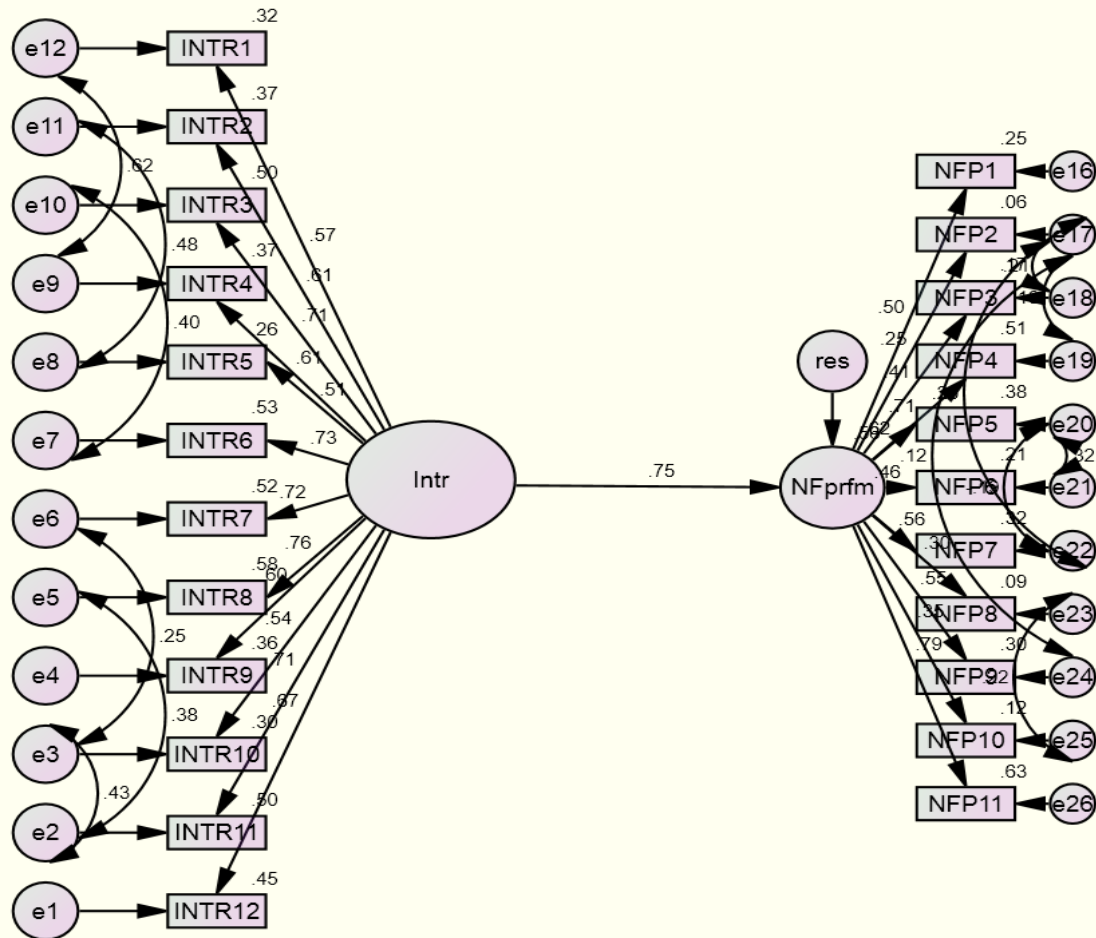
|       |      |                           | <b>Estimate</b> |
|-------|------|---------------------------|-----------------|
| NFP9  | <--- | Non-Financial Performance | .551            |
| NFP10 | <--- | Non-Financial Performance | .349            |
| NFP11 | <--- | Non-Financial Performance | .793            |

**Table 4.18: Regression Weights: (Internationalization vs Non-Financial Performance)**

|                           |      |                           | <b>Estimate</b> | <b>S.E.</b> | <b>C.R.</b> | <b>P</b> |
|---------------------------|------|---------------------------|-----------------|-------------|-------------|----------|
| Non-Financial Performance | <--- | Internationalization      | .490            | .059        | 8.318       | ***      |
| INTR12                    | <--- | Internationalization      | 1.000           |             |             |          |
| INTR11                    | <--- | Internationalization      | 1.156           | .094        | 12.292      | ***      |
| INTR10                    | <--- | Internationalization      | .868            | .090        | 9.636       | ***      |
| INTR9                     | <--- | Internationalization      | .707            | .065        | 10.920      | ***      |
| INTR8                     | <--- | Internationalization      | 1.126           | .086        | 13.110      | ***      |
| INTR7                     | <--- | Internationalization      | 1.064           | .086        | 12.390      | ***      |
| INTR6                     | <--- | Internationalization      | 1.190           | .091        | 13.099      | ***      |
| INTR5                     | <--- | Internationalization      | .829            | .088        | 9.415       | ***      |
| INTR4                     | <--- | Internationalization      | .881            | .082        | 10.737      | ***      |
| INTR3                     | <--- | Internationalization      | 1.049           | .082        | 12.836      | ***      |
| INTR2                     | <--- | Internationalization      | .773            | .070        | 11.031      | ***      |
| INTR1                     | <--- | Internationalization      | .771            | .077        | 10.074      | ***      |
| NFP1                      | <--- | Non-Financial Performance | 1.000           |             |             |          |
| NFP2                      | <--- | Non-Financial Performance | .761            | .179        | 4.247       | ***      |
| NFP3                      | <--- | Non-Financial Performance | .735            | .111        | 6.648       | ***      |

|       |      |                           | <b>Estimate</b> | <b>S.E.</b> | <b>C.R.</b> | <b>P</b> |
|-------|------|---------------------------|-----------------|-------------|-------------|----------|
| NFP4  | <--- | Non-Financial Performance | 2.172           | .230        | 9.453       | ***      |
| NFP5  | <--- | Non-Financial Performance | 1.501           | .172        | 8.721       | ***      |
| NFP6  | <--- | Non-Financial Performance | .882            | .124        | 7.115       | ***      |
| NFP7  | <--- | Non-Financial Performance | 1.974           | .239        | 8.265       | ***      |
| NFP8  | <--- | Non-Financial Performance | .574            | .111        | 5.188       | ***      |
| NFP9  | <--- | Non-Financial Performance | 1.279           | .159        | 8.024       | ***      |
| NFP10 | <--- | Non-Financial Performance | .675            | .115        | 5.861       | ***      |
| NFP11 | <--- | Non-Financial Performance | 2.186           | .223        | 9.799       | ***      |

**Figure 4.2: The Path diagram of hypothesized relationship of Internationalization and Non-Financial Performance**



In the second phase, both the financial and non-financial performance has been used in a single model to analyze the relationship with internationalization. A hypothesized relationship has been presented through a path diagram in figure 4.3. In this model there

are now two endogenous variables ‘financial performance’ and ‘non-financial performance’ exhibiting relationship with exogenous variable ‘internationalization’. The single headed arrows in path diagram goes from internationalization separately to financial performance and non-financial performance, this is the hypothesized direct relationship and shows dependence of financial performance and non-financial performance on internationalization. The model fit indices for this path diagram are shown in table 4.19.

**Table 4.19: Model fit Indices**

| Indices           | Value shown |
|-------------------|-------------|
| Chi-Square        | 687.095     |
| Degree of Freedom | 282         |
| Probability level | 0.000       |
| CMIN/DF           | 2.437       |
| RMR               | 0.027       |
| GFI               | 0.903       |
| AGFI              | 0.843       |
| NFI               | 0.901       |
| CFI               | 0.935       |
| RMSEA             | 0.059       |

In model notes, overall model is shown fit with probability level of 0.000. Other modification indices also found in the recommended range. Therefore, overall model is considered a good model fit. The above model fit indices were achieved after modification indices section of output analysis has recommended drawing covariances between

following error terms of two variables internationalization and non-financial performance. e12-e9, e11-e8, e10-e7, e10-e8, e5-e2, e2-e3, e17-e18, e17-e22, e18-e22, e20-e22, e20-e21, e19-e20, e19-e22, e23-e25.

The results of this model are used to examine the hypothesized relationship between the variables: Internationalization and financial performance, and internationalization and non-financial performance. The summary of standardized parameter estimates is provided in table 4.20, and the summary of standard error, critical ratio, and P-value for these estimates are provided in table 4.21.

Parameter estimates for financial performance over internationalization and non-financial performance over internationalization are shown in table 4.20. The estimate value of relationship between financial performance and internationalization is 0.395, which means a strong and positive relationship between these two. Table 4.21 provides significance value along critical ratio for this relationship, critical ratio for this relationship shown is 6.298 with significant P-value. Thus, a positive and significant relationship can be seen between internationalization and financial performance. Similarly, the estimate value of relationship between non-financial performance and internationalization is shown as 0.758 in the same table, which indicates a high and positive relationship between these variables. In table 4.21, critical ratio for this relationship is shown as 8.231, with significant P-value. Thus, again high positive and significant relationship can be seen between internationalization and non-financial performance. All other parameters of all the three variables have also shown P-value less than 0.05, indicating the relevance of these paths to model, evidenced from their significance value.

**Table 4.20: Standardized Regression Weights: (Internationalization Vs Financial and Non-Financial Performance**

|                                  |      |                             | <b>Estimate</b> |
|----------------------------------|------|-----------------------------|-----------------|
| <b>Financial Performance</b>     | <--- | <b>Internationalization</b> | <b>.395</b>     |
| <b>Non Financial Performance</b> | <--- | <b>Internationalization</b> | <b>.758</b>     |
| INTR12                           | <--- | Internationalization        | .664            |
| INTR11                           | <--- | Internationalization        | .705            |
| INTR10                           | <--- | Internationalization        | .571            |
| INTR9                            | <--- | Internationalization        | .603            |
| INTR8                            | <--- | Internationalization        | .734            |
| INTR7                            | <--- | Internationalization        | .707            |
| INTR6                            | <--- | Internationalization        | .735            |
| INTR5                            | <--- | Internationalization        | .498            |
| INTR4                            | <--- | Internationalization        | .626            |
| INTR3                            | <--- | Internationalization        | .704            |
| INTR2                            | <--- | Internationalization        | .615            |
| INTR1                            | <--- | Internationalization        | .580            |
| FP1                              | <--- | Financial Performance       | .713            |
| FP2                              | <--- | Financial Performance       | .838            |
| FP3                              | <--- | Financial Performance       | .812            |
| NFP1                             | <--- | Non-Financial Performance   | .499            |
| NFP2                             | <--- | Non-Financial Performance   | .285            |
| NFP3                             | <--- | Non-Financial Performance   | .423            |



|       |      |                              |      |
|-------|------|------------------------------|------|
| NFP4  | <--- | Non-Financial<br>Performance | .695 |
| NFP5  | <--- | Non-Financial<br>Performance | .589 |
| NFP6  | <--- | Non-Financial<br>Performance | .456 |
| NFP7  | <--- | Non-Financial<br>Performance | .578 |
| NFP8  | <--- | Non-Financial<br>Performance | .306 |
| NFP9  | <--- | Non-Financial<br>Performance | .553 |
| NFP10 | <--- | Non-Financial<br>Performance | .350 |
| NFP11 | <--- | Non-Financial<br>Performance | .799 |

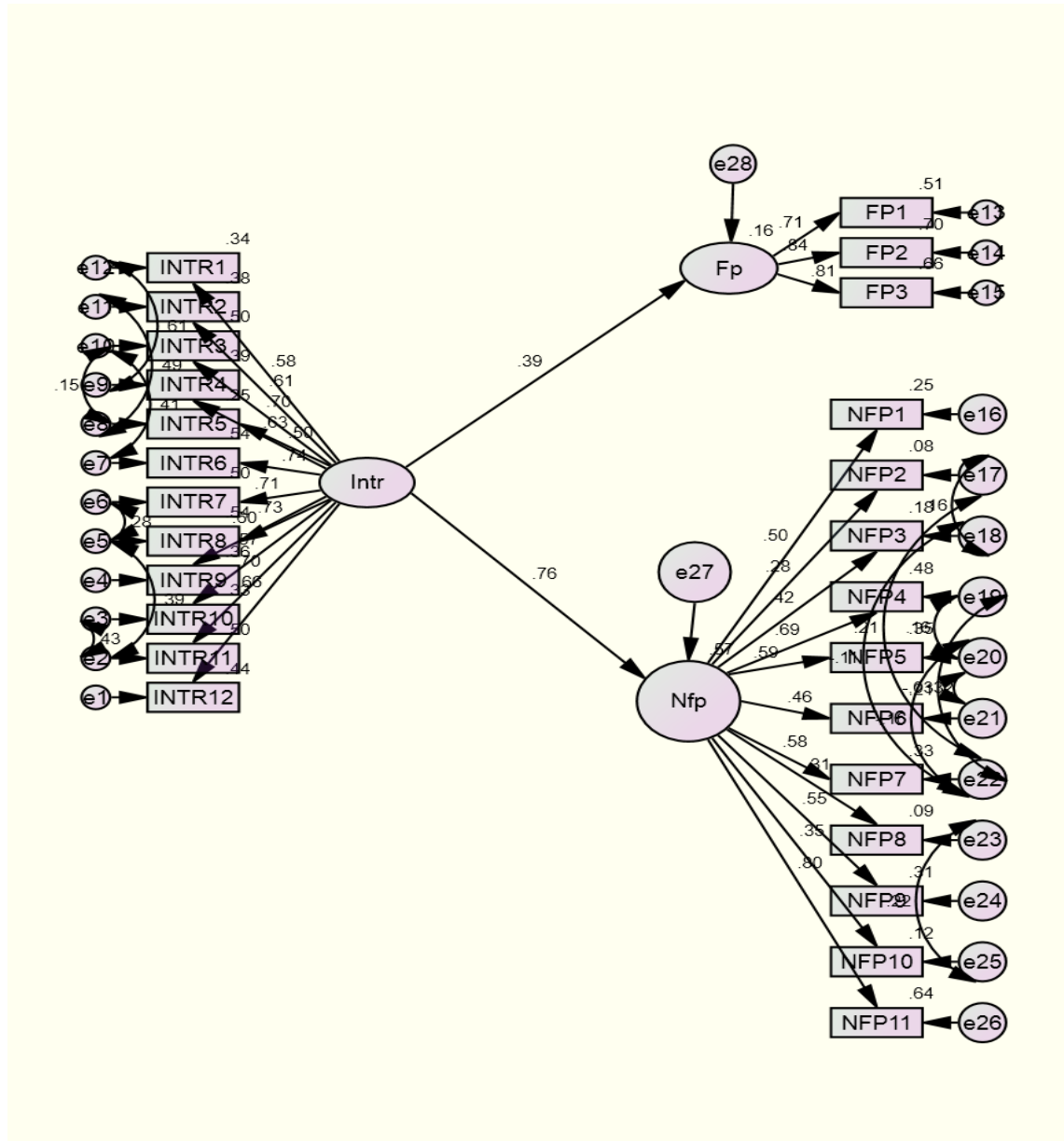
**Table 4.21: Regression Weights: (Internationalization Vs Financial and Non-Financial Performance)**

|                           |      |                       | <b>Estimate</b> | <b>S.E.</b> | <b>C.R.</b> | <b>P</b> |
|---------------------------|------|-----------------------|-----------------|-------------|-------------|----------|
| Financial Performance     | <--- | Internationalization  | .496            | .079        | 6.298       | ***      |
| Non-Financial Performance | <--- | Internationalization  | .496            | .060        | 8.231       | ***      |
| INTR12                    | <--- | Internationalization  | 1.000           |             |             |          |
| INTR11                    | <--- | Internationalization  | 1.165           | .096        | 12.156      | ***      |
| INTR10                    | <--- | Internationalization  | .915            | .092        | 9.926       | ***      |
| INTR9                     | <--- | Internationalization  | .714            | .066        | 10.812      | ***      |
| INTR8                     | <--- | Internationalization  | 1.098           | .087        | 12.663      | ***      |
| INTR7                     | <--- | Internationalization  | 1.048           | .087        | 12.000      | ***      |
| INTR6                     | <--- | Internationalization  | 1.211           | .093        | 13.022      | ***      |
| INTR5                     | <--- | Internationalization  | .819            | .090        | 9.120       | ***      |
| INTR4                     | <--- | Internationalization  | .915            | .084        | 10.852      | ***      |
| INTR3                     | <--- | Internationalization  | 1.057           | .084        | 12.634      | ***      |
| INTR2                     | <--- | Internationalization  | .784            | .072        | 10.956      | ***      |
| INTR1                     | <--- | Internationalization  | .792            | .079        | 10.095      | ***      |
| FP1                       | <--- | Financial Performance | 1.000           |             |             |          |

|      |      |                              | <b>Estimate</b> | <b>S.E.</b> | <b>C.R.</b> | <b>P</b> |
|------|------|------------------------------|-----------------|-------------|-------------|----------|
| FP2  | <--- | Financial<br>Performance     | 1.394           | .098        | 14.252      | ***      |
| FP3  | <--- | Financial<br>Performance     | 1.002           | .071        | 14.026      | ***      |
| NFP1 | <--- | Non-Financial<br>Performance | 1.000           |             |             |          |
| NFP2 | <--- | Non-Financial<br>Performance | .888            | .182        | 4.874       | ***      |
| NFP3 | <--- | Non-Financial<br>Performance | .766            | .114        | 6.691       | ***      |
| NFP4 | <--- | Non-Financial<br>Performance | 2.142           | .233        | 9.191       | ***      |
| NFP5 | <--- | Non-Financial<br>Performance | 1.448           | .173        | 8.389       | ***      |
| NFP6 | <--- | Non-Financial<br>Performance | .892            | .126        | 7.069       | ***      |
| NFP7 | <--- | Non-Financial<br>Performance | 2.040           | .248        | 8.215       | ***      |
| NFP8 | <--- | Non-Financial<br>Performance | .591            | .113        | 5.229       | ***      |
| NFP9 | <--- | Non-Financial<br>Performance | 1.298           | .163        | 7.945       | ***      |

|       |      |                              | <b>Estimate</b> | <b>S.E.</b> | <b>C.R.</b> | <b>P</b> |
|-------|------|------------------------------|-----------------|-------------|-------------|----------|
| NFP10 | <--- | Non-Financial<br>Performance | .684            | .117        | 5.827       | ***      |
| NFP11 | <--- | Non-Financial<br>Performance | 2.225           | .231        | 9.649       | ***      |

**Figure 4.3: The model diagram for hypothesized relationship of Internationalization with Financial performance and Non-financial performance**



## **Hypotheses Testing**

The hypothesized relationships in model are tested by evaluating each of the model path coefficients for its significance, with overall model fit indices in acceptable range. Like in regression analysis, here null hypothesis states that coefficients shown on the path are equal to zero and tested for statistical significance. If the path coefficients are under statistical significance, the hypothesized predicted relationship will be accepted. The results shown in table 4.20 and table 4.21 are used for examining set hypotheses.

### **To analyze the effects of internationalization on firm performance.**

#### **H6a: Internationalization has positive effect on Firm's Financial Performance.**

The connecting path between internationalization and financial performance yields Beta value = 0.395, Critical ratio = 6.298, which is statistically significant as P-value < 0.05. Which means that internationalization has a positive and significant relationship with financial performance. Thus, H6a is accepted.

#### **H6b: Internationalization has positive effect on Firm's Non-Financial Performance.**

The connecting path between internationalization and non-financial performance yields Beta value = 0.758, Critical ratio = 8.231, which is statistically significant as P-value < 0.05. which means that internationalization has a positive and significant relationship with non-financial performance. Thus, H6b is accepted.

#### **4.8. Effects of Internationalization on the relationships between Entrepreneurial Orientation, Global Mindset, Network Relationships, Government Support, Human Capital, and Firm Performance.**

##### **Mediating Effect**

According to Baron and Kenny (1986) and Judd and Kenny (1981) role of a variable as a mediating variable on the relationship between other variables can be analyzed by four steps. The same recommended procedure has been used for examining the role of internationalization on the relationships between entrepreneurial orientation, global mindset, network relationships, government support, human capital and firm performance. Firm performance here has been divided in financial and non-financial performance. Unmediated and mediated models have been illustrated through figures 4.4 and 4.5 respectively.

Figure 4.4: Unmediated model

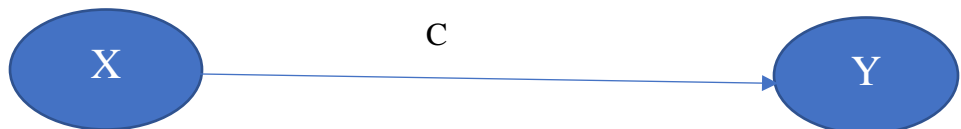
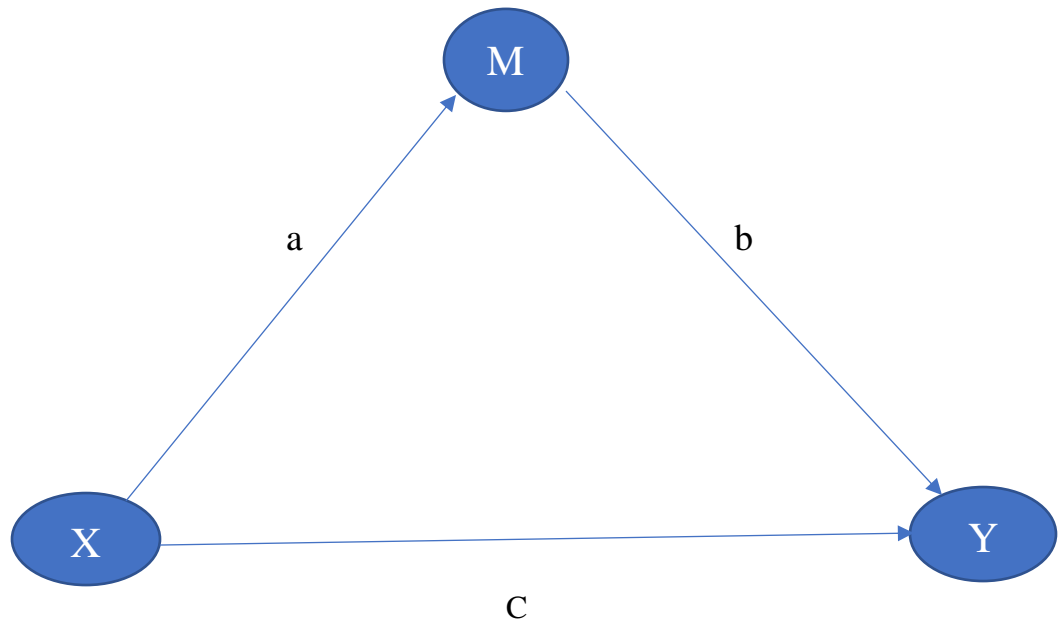


Figure 4.5: Mediated model



The four steps recommended by Baron and Kenny (1986) and Judd and Kenny (1981) are as:

Step 1: In first step the relationship between initial variable (X) and outcome variable (Y) is shown. In this step, path 'C' is estimated and tested shown in figure 4.4. In the present study, the variables entrepreneurial orientation, network relationships, global mindset, government support, and human capital are related to firm performance, both financial and non-financial.

Step 2: This step shows the relationship between initial variable (X) and the mediating variable (M). In this step, path shown as path 'a' will be estimated and tested shown in



figure 4.5. In this step, the mediating variable of the model is treated as outcome variable on this path. In present study, the relationship of entrepreneurial orientation, network relationships, global mindset, government support, and human capital with internationalization is shown.

Step 3: This step shows the effect of mediating variable (M) on outcome variable (Y). In this step, path shown as path 'b' will be estimated and tested shown in figure 4.5. This step treats X and M as predictors and Y as outcome variable.

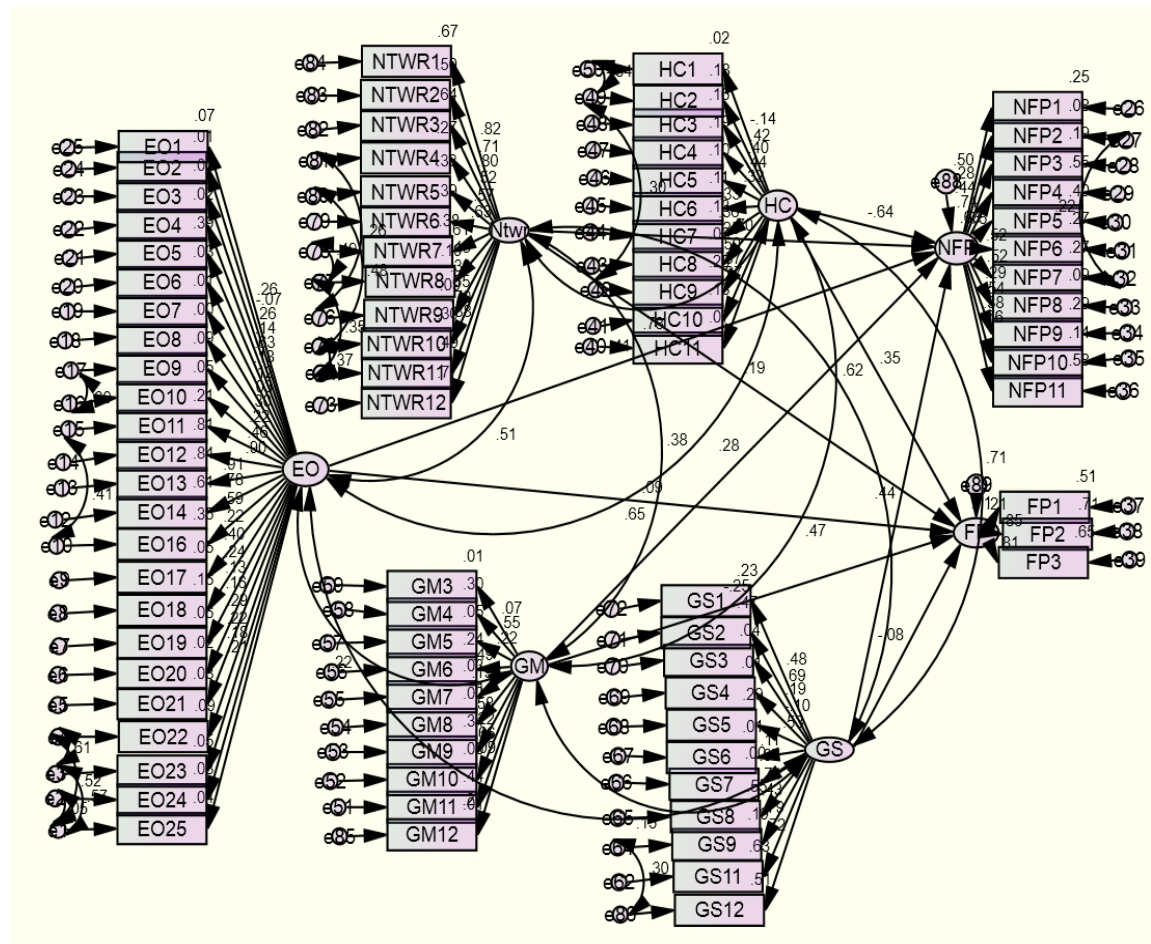
Step 4: In this step, the role of mediator is determined. If there is a complete mediation of M on relationship between X and Y, the path 'c' will exhibit zero value in figure 4.5. If there is partial mediation, the parameter estimates of path 'c' in presence of M (figure 4.5) will be smaller than parameter estimate of path 'c' without M (figure 4.4). In this step, path 'c' from mediated model is compared with path 'c' from unmediated model.

According to Baron and Kenny (1986) zero and non-zero coefficients should be used for assessment of all the four steps rather than their statistical significance. Further they claimed, small coefficients with large sample sizes show statistical significance, but, large coefficients with small sample sizes are non-significant. Though, statistical significance is of enough importance in SEM, but, defining all the above four steps in terms of it will be a futile exercise.

The unmediated model describing the relationships of entrepreneurial orientation, network relationships, global mindset, government support, and human capital with financial and non-financial performance is shown in figure 4.6. There are seven constructs in the structural equation modeling diagram, entrepreneurial orientation, network relationships, global mindset, government support, human capital, financial performance and non-financial performance. The relationships between these variables are depicted by arrows. The single headed arrows in the diagram exhibit the linear dependency of variables, which indicates the amount of dependency of one variable on another. As an example, the single headed arrow from global mindset to financial performance represent the direct hypothesized relationship between these variables. All the double headed arrows between

entrepreneurial orientation, network relationships, global mindset, government support and human capital represent covariances or correlations between them. There is no hypothesis of causal paths for double headed arrows. There is an assumption of relationship between these variables. (e) represents the measurement errors in model.

**Figure 4.6: The Path Diagram of Unmediated Model**



When model was run at first, it exhibited some model fit indices in the acceptable range of good model fit, while, some of these indices were close to the recommended levels. The output of model summary notes for this hypothesized model is shown in table 4.23. The table reports that minimum was achieved in reaching the convergent solution, by yielding the Chi-square value of 10078.754, with degree of freedom 3634, and an overall fit of the model.

**Table 4.22: Result (Unmediated Model)**

|                                  |
|----------------------------------|
| <b>Minimum was achieved</b>      |
| <b>Chi-square = 10078.754</b>    |
| <b>Degrees of freedom = 3634</b> |
| <b>Probability level = .000</b>  |

The Model fit indices exhibited are CMIN/DF = 2.773, RMR = 0.046, GFI = 0.813, AGFI = 0.792, NFI = 0.801, CFI = 0.828, RMSEA = 0.066. According to Byrne (2010) p.p 178, model needs to be re-estimated by specifying some parameters as free in the model. In certain cases, hypothesized models may be poorly fit to data, re-specification of model should be done till good model indices are achieved (Anderson and Gerbin, 1988; Hair et al., 2006; Kline, 2005).

In post hoc analyses, modification indices part of the output has shown many paths with high MI values and their par change effects. These paths can be taken into account to determine a well model fit. Therefore, to execute, these paths have been treated as free paths by connecting their error terms in the model.

- \* In the first step, error terms (e3 and e4) with MIs 150.819, and expected estimated value of 0.384, on entrepreneurial orientation variable has been connected, and the

model named as model 2. The model fit indices have exhibited change as Chi-Square = 9892.160, Degree of Freedom = 3633, CMIN/DF = 2.723, RMR = 0.046, GFI = 0.822, AGFI = 0.802, NFI = 0.811, CFI = 0.842, RMSEA = 0.065.

- \* In the second step, error terms (e77 and e78) with MIs 104.498, and expected estimated value of 0.371, on the variable of network relationships has been connected, and model named as model 3. The changed model fit indices shown are: Chi-square = 9767.801, Degree of Freedom = 3632, CMIN/DF = 2.689, RMR = 0.045, GFI = 0.830, AGFI = 0.804, NFI = 0.818, CFI = 0.852, RMSEA = 0.064.
- \* In the third step, error terms (e75 and e80) with MIs 68.340, and expected estimated value of 0.280, on the variable of network relationships has been connected, and the model named as model 4. The change shown by model fit indices along with chi-square and Df are as: Chi-square = 9692.958, Degree of Freedom = 3631, CMIN/DF = 2.670, RMR = 0.045, GFI = 0.836, AGFI = 0.806, NFI = 0.825, CFI = 0.860, RMSEA = 0.064.
- \* In the fourth step, error terms (e74 and e75) with MIs 35.923, and expected estimated value of 0.174, on the variable of network relationships has been connected, and the model named as model 5. With connecting these error terms, the following change has been shown in model fit indices Chi-square = 9625.422, Degree of Freedom = 3630, CMIN/DF = 2.652, RMR = 0.045, GFI = 0.849, AGFI = 0.809, NFI = 0.837, CFI = 0.869, RMSEA = 0.063.
- \* In the fifth step, error terms (e76 and e81) with MIs 27.353, and expected estimated value of 0.198, on the variable of network relationships has been connected to treat as free parameter, and the model named as model 6. The model fit indices of the overall model exhibited the following change Chi-square = 9596.989, Degree of Freedom = 3629, CMIN/DF = 2.645, RMR = 0.045, GFI = 0.858, AGFI = 0.811, NFI = 0.843, CFI = 0.876, RMSEA = 0.063.
- \* In the sixth step, the error terms (e49 e50) with MIs 50.407, and expected estimated value of -0.299, on the variable of human capital has been connected, with modified model named as model 7. The model fit indices were affected as well and exhibited

the modified values as Chi-square = 9534.279, Degree of Freedom = 3628, CMIN/DF = 2.628, RMR = 0.044, GFI = 0.866, AGFI = 0.812, NFI = 0.851, CFI = 0.886, RMSEA = 0.063.

- \* In the seventh step, the error terms of the variable network relationships (e74 and e77) with MIs 71.069, having expected estimated change value of 0.247 has been connected, and the model named as model 8. A fair amount of change has been exhibited by model fit indices as Chi-square = 9451.604, Degree of Freedom = 3627, CMIN/DF = 2.606, RMR = 0.044, GFI = 0.884, AGFI = 0.819, NFI = 0.869, CFI = 0.896, RMSEA = 0.063.
- \* In the eighth step, the error terms (e1 and e2) with MIs 50.501, having expected estimated change value of 0.169, on the variable of entrepreneurial orientation, has been connected and model named as model 9. The change exhibited by model fit indices is as follows, Chi-square = 9397.9, Degree of Freedom = 3626, CMIN/DF = 2.592, RMR = 0.44, GFI = 0.891, AGFI = 0.822, NFI = 0.875, CFI = 0.902, RMSEA = 0.062.
- \* In the ninth step, the error terms of the variable entrepreneurial orientation shown as (e1 and e3) with MIs 45.087, and estimated expected change value of 0.174, has been connected and model named as model 10. The model fit indices have been changed as Chi-square = 9361.474, Degree of Freedom = 3625, CMIN/DF = 2.582, RMR = 0.044, GFI = 0.899, AGFI = 0.824, NFI = 0.882, CFI = 0.909, RMSEA = 0.062.
- \* In the tenth step, the error terms (e42 and 49) with MIs 34.175, and expected estimated change value of 0.148, on the variable of human capital have been connected, and the model named as model 11. The changed model fit indices were exhibited as, Chi-square = 9323.714, Degree of Freedom = 3624, CMIN/DF = 2.573, RMR = 0.044, GFI = 0.904, AGFI = 0.825, NFI = 0.889, CFI = 0.914, RMSEA = 0.062.
- \* In the eleventh step, the error terms (e27 and e32) with MIs 18.983, and expected estimated value change of 0.178, on the variable of non- financial performance, has

been connected. The changed model was named as model 12. The change in model fit indices due to the covariance drawn is shown as Chi-square = 9303.63, Degree of Freedom = 3623, CMIN/DF = 2.568, RMR = 0.044, GFI = 0.908, AGFI = 0.827, NFI = 0.896, CFI = 0.919, RMSEA = 0.062.

- \* In the twelfth step, the error terms on the variable entrepreneurial orientation (e16 and e17) with MIs 148.033, and expected estimated change value of 0.155, has been connected. The changed model with drawn covariances was named as model 13. The changed model fit indices of the model are shown as Chi-square = 9121.654, Degree of Freedom = 3622, CMIN/DF = 2.518, RMR = 0.044, GFI = 0.915, AGFI = 0.831, NFI = 0.906, CFI = 0.938, RMSEA = 0.061.
- \* In the thirteenth step, the error terms (e10 and e15) with MIs 63.200 and expected estimated change value of 0.196, on the variable of entrepreneurial orientation, has been connected. The model with drawn covariances was named as model 14. The change exhibited by model fit indices is as follows, Chi-square = 9052.686, Degree of Freedom = 3621, CMIN/DF = 2.500, RMR = 0.044, GFI = 0.920, AGFI = 0.834, NFI = 0.909, CFI = 0.943, RMSEA = 0.060.
- \* In the fourteenth step, the error terms (e1 and e4) with MIs 18.915, and expected estimated change value of 0.102, on the variable of entrepreneurial orientation, has been connected. The model after covariances drawn was named as model 15. The changed model fit indices are shown as Chi-square = 8942.325, Degree of Freedom = 3620, CMIN/DF = 2.470, RMR = 0.044, GFI = 0.924, AGFI = 0.836, NFI = 0.912, CFI = 0.947, RMSEA = 0.060.
- \* In the fifteenth step, the error terms (e64 and e86) with MIs 29.678, and expected estimated change value of 0.109, on the variable of government support, has been connected. The model has been named as model 16. The model fit indices exhibited the following changed values Chi-square = 8910.472, Degree of Freedom = 3619, CMIN/DF = 2.462, RMR = 0.044, GFI = 0.927, AGFI = 0.838, NFI = 0.913, CFI = 0.951, RMSEA = 0.060.

In model 16 all the model fit indices are in recommended acceptable range of good model fit. However, some initially hypothesized paths in the full model may be irrelevant as evidenced from their statistical non-significance. While reviewing the table of regression weights containing critical values with their P-values, five parameter paths have been found non-significant from variables entrepreneurial orientation, global mindset, human capital and government support. According to Byrne (2010) p.p 185-190, these non-significant paths need to be deleted from the overall model. Deletion of these paths and the impact shown on model fitness is described as:

|              |       |      |       |      |
|--------------|-------|------|-------|------|
| EO15 <--- EO | -.037 | .132 | -.283 | .777 |
|--------------|-------|------|-------|------|

The above path from the variable entrepreneurial orientation to EO15, with critical ratio of -.283 having P-value at 95 percent confidence level is 0.777, which is more than 0.05. Hence, is a non-significant path, after deleting this path from the model, indices have been changed as: Chi-square = 8737.472, Degree of Freedom = 3534, CMIN/DF = 2.472, RMR = 0.044, GFI = 0.931, AGFI = 0.840, NFI = 0.915, CFI = 0.955, RMSEA = 0.060.

|             |      |      |      |      |
|-------------|------|------|------|------|
| GM2 <--- GM | .006 | .065 | .088 | .930 |
|-------------|------|------|------|------|

The above path from the variable global mindset to the GM2, having critical ration of 0.088, with P-value of 0.930 at 95 percent confidence level, which is more than 0.05. Hence, this path is non-significant. Now after deleting this path from the model, following changes has been seen in model fit indices. Chi-square = 8545.745, Degree of Freedom = 3450, CMIN/DF = 2.477, RMR = 0.044, GFI = 0.934, AGFI = 0.842, NFI = 0.917, CFI = 0.958, RMSEA = 0.060.

|             |      |      |      |      |
|-------------|------|------|------|------|
| GM1 <--- GM | .041 | .069 | .596 | .551 |
|-------------|------|------|------|------|

The above path on variable global mindset up to GM1, with critical ratio of 0.596 and P-value of 0.551. Which is more than 0.05, therefore, at 95 percent confidence level this path is non-significant. After deleting the path following changes has been found in

model fit indices. Chi-square = 8321.2, Degree of Freedom = 3367, CMIN/DF = 2.471, RMR = 0.044, GFI = 0.936, AGFI = 0.0844, NFI = 0.920, CFI = 0.961, RMSEA = 0.060.

|              |        |      |        |      |
|--------------|--------|------|--------|------|
| HC12 <--- HC | -0.242 | .214 | -1.129 | .259 |
|--------------|--------|------|--------|------|

The above path on variable human capital up to HC12, with critical ration of -1.129, and P-value against it 0.259, which is more than 0.05. at 95 percent confidence level this path is non-significant. Deletion of this path has changed the model fit indices as Chi-square = 8124.565, Degree of Freedom = 3285, CMIN/DF = 2.473, RMR = 0.044, GFI = 0.939, AGFI = 0.0850, NFI = 0.924, CFI = 0.965, RMSEA = 0.060.

|              |        |      |       |      |
|--------------|--------|------|-------|------|
| GS10 <--- GS | -0.037 | .047 | -.784 | .433 |
|--------------|--------|------|-------|------|

The above path from variable Government support to GS10, with critical ratio of -.784, and P-value against it is 0.433, which is more than 0.05. Therefore, at 95 percent confidence level this path is non-significant. Deletion of this path has changed model fit indices as follows Chi-square = 7988.593, Degree of Freedom = 3204, CMIN/DF = 2.493, RMR = 0.045, GFI = 0.941, AGFI = 0.0853, NFI = 0.927, CFI = 0.969, RMSEA = 0.060.

Results of unmediated model are used for examining the hypothesized relationships of entrepreneurial orientation with financial and non-financial performance, network relationships with financial and non-financial performance, global mindset with financial and non-financial performance, government support with financial and non-financial performance, and human capital with financial and non-financial performance. Table 4.23 contains unstandardized parameter estimates, critical ratios along with their P-values for all the hypothesized paths of unmediated model. In order to test hypothesized relationships, each model path coefficient has been evaluated with their significance value, at acceptable model fit indices. The path coefficients at standardized level for each hypothesized relationship are provided in table 4.24. For the hypothesized relationship between entrepreneurial orientation and financial performance path coefficient is 0.08 as shown in table 4.24, this relationship has a critical ratio of 0.715, which is significant with



P-value 0.025 as shown in table 4.23. The relationship between entrepreneurial orientation and non-financial performance shows a path coefficient of 0.415 as shown in table 4.24, this relationship exhibits the critical ratio of 0.015 with a significance value of 0.015 shown in table 4.23.

Another hypothesized relationship between network relationships and financial performance has a standardized path coefficient of 0.190 as shown in table 4.24, critical ratio against this relationship is 1.753, with significance value of 0.040 shown in table 4.23. Another relationship on the variable of network relationships with non-financial performance in the same model has a path coefficient of 0.702 shown in table 4.24, the critical ratio for this relationship is 5.558, with significance value of 0.000 as shown in table 4.23.

The hypothesized relationship between global mindset and financial performance in the model exhibits standardized path coefficient of -0.253 shown in table 4.24. This relationship has a critical ratio of -2.508, with the P-value of 0.012 as shown in table 4.23. Global mindset in relationship with another variable non-financial performance has path coefficient of 0.277 shown in table 4.24. The critical ratio for this relationship is 2.366, which is significant as P-value shown is 0.018 shown in table 4.23.

In this model, the relationship between government support and financial performance shows path coefficient of -0.081 shown in table 4.24, this relationship has a critical ratio of -0.572, with significance value 0.047 as shown in table 4.23. The relationship between government support and non-financial performance has the path coefficient of 0.439 shown in table 4.24. This relationship has the critical ratio of 2.624, which is significant with P-value 0.009 shown in table 4.23.

Another relationship in the model between human capital and financial performance has path coefficient of 0.350 shown in table 4.24, this relationship shows its critical ratio as 1.255, with P-value of 0.019. However, the relationship between human capital and non-financial performance shows path coefficient of -0.636 shown in table 4.24.

Critical ratio for this relationship shown is -0.764, which is significant with P-value 0.038 shown in table 4.24.

### **Hypotheses Testing**

Each of the hypothesized relationship is evaluated by their path coefficients in the model. Like in regression analysis, the null hypothesis is stated as 'there exists no relationship between the variables' or the value of path coefficient is equal to zero and is tested whether it is statistically significant or not. If the P-value falls under the acceptable significance range, the predicted hypothesized relationship in the model will be supported. Thus, the hypotheses related to the direct effects will be treated as:

#### **H7a: Entrepreneurial Orientation has a positive relationship with Firm's Financial Performance**

The connecting path between entrepreneurial orientation and financial performance yields Beta value = 0.087, Critical ratio = 0.715, which is statistically significant as P-value is 0.025 at 95 percent confidence level, which is less than 0.05. That means entrepreneurial orientation has a positive and significant relationship with financial performance. Thus, H7a is supported.

#### **H7b: Entrepreneurial Orientation has a positive relationship with Firm's Non-financial Performance**

The connecting path between entrepreneurial orientation and non-financial performance yields Beta value = 0.415, Critical ratio = 2.432, which is statistically significant as P-value is 0.015 at 95 percent confidence level, which is less than 0.05. That means entrepreneurial orientation has a positive and significant relationship with non-financial performance. Thus, H7b is supported.

#### **H8a: Global Mindset has a positive relationship with Firm's Financial Performance**

The connecting path between global mindset and financial performance yields Beta value = -0.253, Critical ratio = -2.508, which is statistically significant as P-value is 0.012 at 95 percent confidence level, which is less than 0.05. That means global mindset has a negative or reverse, but, significant relationship with financial performance. Thus, H8a is not supported.

**H8b: Global Mindset has a positive relationship with Firm's Non-Financial Performance**

The connecting path between global mindset and non-financial performance yields Beta value = 0.277, Critical ratio = 2.366, which is statistically significant as P-value is 0.038 at 95 percent confidence level, which is less than 0.05. That means global mindset has a positive and significant relationship with non-financial performance. Thus, H8b is supported.

**H9a: Network Relationships has a positive relationship with Firm's Financial Performance**

The connecting path between network relationships and financial performance yields Beta value = 0.190, Critical ratio = 1.753, which is statistically significant as P-value is 0.040 at 95 percent confidence level, which is less than 0.05. That means network relationships has a positive and significant relationship with financial performance. Thus, H9a is supported.

**H9b: Network Relationships has a positive relationship with Firm's Non-Financial Performance**

The connecting path between network relationships and non-financial performance yields Beta value = 0.702, Critical ratio = 5.558, which is statistically significant as P-value is 0.000 at 95 percent confidence level, which is less than 0.05. That means network relationships has a positive and significant relationship with non-financial performance. Thus, H9b is supported.

**H10a: Government Support has a positive relationship with Firm's Financial Performance**

The connecting path between government support and financial performance yields Beta value = -0.081, Critical ratio = -0.572, which is statistically significant as P-value is 0.047 at 95 percent confidence level, which is less than 0.05. That means government support has a negative but significant relationship with financial performance. Thus, H10a is not supported.

**H10b: Government Support has a positive relationship with Firm's Non-Financial Performance**

The connecting path between government support and non-financial performance yields Beta value = 0.439, Critical ratio = 2.624, which is statistically significant as P-value is 0.009 at 95 percent confidence level, which is less than 0.05. That means government support has a positive and significant relationship with non-financial performance. Thus, H10b is supported.

**H11a: Human Capital has a positive relationship with Firm's Financial Performance**

The connecting path between human capital and financial performance yields Beta value = 0.350, Critical ratio = 1.255, which is statistically significant as P-value is 0.019 at 95 percent confidence level, which is less than 0.05. That means human capital has a positive and significant relationship with financial performance. Thus, H11a is supported.

**H11b: Human Capital has a positive relationship with Firm's Non-Financial Performance**

The connecting path between human capital and non-financial performance yields Beta value = -0.636, Critical ratio = -1.764, which is statistically significant as P-value is 0.038 at 95 percent confidence level, which is less than 0.05. That means human capital has a negative but significant relationship with non-financial performance. Thus, H11b is not supported.

**Table 4.23: Regression weights (Unmediated Model).**

| <b>Relationship</b>   | <b>Estimate</b> | <b>S. E</b> | <b>C.R</b> | <b>P</b> | <b>Label</b> |
|---|-----------------|-------------|------------|----------|--------------|
| <b>Non-Financial Performance<br/>&lt; Entrepreneurial<br/>Orientation</b> | 0.745           | 0.306       | 2.432      | 0.015    | Par_74       |
| <b>Financial Performance<br/>&lt; Entrepreneurial<br/>Orientation</b>     | 0.296           | 0.414       | 0.715      | 0.025    | Par_75       |
| <b>Non-Financial Performance<br/>&lt; Network Relationships</b>           | 0.265           | 0.048       | 5.558      | 0.000    | Par_76       |
| <b>Non-Financial Performance<br/>&lt; Human Capital</b>                   | -1.306          | 0.741       | -1.764     | 0.038    | Par_77       |
| <b>Non-Financial Performance<br/>&lt; Global Mindset</b>                  | 0.149           | 0.063       | 2.366      | 0.018    | Par_78       |
| <b>Financial Performance<br/>&lt; Network Relationships</b>               | 0.136           | 0.078       | 1.753      | 0.040    | Par_79       |
| <b>Financial Performance<br/>&lt; Human Capital</b>                       | 1.370           | 1.091       | 1.255      | 0.019    | Par_80       |
| <b>Financial Performance<br/>&lt; Global Mindset</b>                      | -0.259          | 0.103       | -2.508     | 0.012    | Par_81       |
| <b>Financial Performance<br/>&lt; Government Support</b>                  | -0.094          | 0.164       | -0.572     | 0.047    | Par_82       |
| <b>Non-Financial Performance<br/>&lt; Government Support</b>              | 0.266           | 0.101       | 2.624      | 0.009    | Par_83       |

**Table 4.24: Standardized Regression Weights: (Unmediated Model)**

| <b>Relationship</b>  | <b>Estimate</b> |
|--|-----------------|
| <b>Non-Financial Performance<br/>&lt;Entrepreneurial Orientation</b> | <b>0.415</b>    |
| <b>Financial Performance<br/>&lt; Entrepreneurial Orientation</b>    | <b>0.087</b>    |
| <b>Non-Financial Performance<br/>&lt; Network Relationship</b>       | <b>0.702</b>    |
| <b>Non-Financial Performance<br/>&lt; Human Capital</b>              | <b>-0.636</b>   |
| <b>Non-Financial Performance<br/>&lt; Global Mindset</b>             | <b>0.277</b>    |
| <b>Financial Performance<br/>&lt; Network Relationships</b>          | <b>0.190</b>    |
| <b>Financial Performance<br/>&lt; Human Capital</b>                  | <b>0.350</b>    |
| <b>Financial Performance<br/>&lt; Global Mindset</b>                 | <b>-0.253</b>   |
| <b>Financial Performance<br/>&lt; Government Support</b>             | <b>-0.081</b>   |
| <b>Non-Financial Performance<br/>&lt; Government Support</b>         | <b>0.439</b>    |

The model describing the relationships of entrepreneurial orientation, network relationships, global mindset, government support, and human capital with financial and non-financial performance with the mediating effect of internationalization is shown as full mediated model in figure 4.7. The structural equation modeling diagram of full mediated model comprises total eight variables: entrepreneurial orientation, network relationships, global mindset, government support, human capital, internationalization, financial

performance and non-financial performance. The relationships between these variables are depicted by arrows. The single headed arrows in the diagram exhibit the linear dependency of variables, which indicates the amount of dependency of one variable on another. As an example, the single headed arrow from global mindset to financial performance represent the direct hypothesized relationship between these variables, and the single headed arrows first from entrepreneurial orientation to internationalization and then from internationalization to financial performance represents hypothesized mediated role of internationalization on the relationship between entrepreneurial orientation and financial performance. All the double headed arrows between exogenous variables: entrepreneurial orientation, network relationships, global mindset, government support and human capital represent covariances or correlations between them. There is no hypothesis of causal paths for double headed arrows. There is an assumption of relationship between these variables. The measurement errors in model are represented as (e).

At the initial run, model exhibited some model fit indices in the acceptable range of good model fit, while, some of these indices were close to the recommended levels. The output of model summary notes for this hypothesized model is shown in table 4.25. The table reports that minimum was achieved in reaching the convergent solution, by yielding the Chi-square value of 13360.177, with degree of freedom 4725, and an overall fit of the model.

**Table 4. 25: Result (Mediated Model)**

|                                  |
|----------------------------------|
| <b>Minimum was achieved</b>      |
| <b>Chi-square = 13360.177</b>    |
| <b>Degrees of freedom = 4725</b> |
| <b>Probability level = .000</b>  |

The Model fit indices exhibited are CMIN/DF = 2.828, RMR = 0.046, GFI = 0.777, AGFI = 0.757, NFI = 0.717, CFI = 0.822, RMSEA = 0.067. According to Byrne (2010) p.p 178, model needs to be re-estimated by specifying some parameters as free in the model. In certain cases, hypothesized models may be poorly fit to data, re-specification of model should be done till good model indices are achieved (Anderson and Gerbin, 1988; Hair et al., 2006; Kline, 2005).

In post hoc analyses, modification indices part of the output has shown many paths with high MI values and their par change effects. These paths can be taken into account to determine a well model fit. Therefore, to execute, these paths have been treated as free paths by connecting their error terms in the model.

- \* In the first step, error terms (e77 and e78) with MIs 109.443, and expected estimated value of 0.370, on network relationships variable has been connected, and the model named as model 2. The model fit indices have exhibited change as Chi-Square = 13235.890, Degree of Freedom = 4724, CMIN/DF = 2.802, RMR = 0.046, GFI = 0.790, AGFI = 0.763, NFI = 0.735, CFI = 0.853, RMSEA = 0.066.
- \* In the second step, error terms (e49 and e50) with MIs 58.428.498, and expected estimated value of -0.322, on the variable of human capital has been connected, and model named as model 3. The changed model fit indices shown are: Chi-square = 13168.830, Degree of Freedom = 4723, CMIN/DF = 2.788, RMR = 0.045, GFI = 0.805, AGFI = 0.779, NFI = 0.751, CFI = 0.864, RMSEA = 0.066.
- \* In the third step, error terms (e1 and e3) with MIs 137.407, and expected estimated value of 0.380, on the variable of entrepreneurial orientation has been connected, and the model named as model 4. The change shown by model fit indices along with chi-square and Df are as: Chi-square = 13002.830, Degree of Freedom = 4722, CMIN/DF = 2.754, RMR = 0.045, GFI = 0.823, AGFI = 0.793, NFI = 0.765, CFI = 0.882, RMSEA = 0.065.
- \* In the fourth step, error terms (e1 and e4) with MIs 111.375, and expected estimated value of 0.309, on the variable of entrepreneurial orientation has been connected, and the model named as model 5. With connecting these error terms, the following



change has been shown in model fit indices Chi-square =12973.265, Degree of Freedom = 4721, CMIN/DF = 2.748, RMR = 0.045, GFI = 0.843, AGFI = 0.803, NFI = 0.786, CFI = 0.898, RMSEA = 0.065.

- \* In the fifth step, error terms (e90 and e93) with MIs 158.356, and expected estimated value of 0.167, on the variable of internationalization has been connected to treat as free parameter, and the model named as model 6. The model fit indices of the overall model exhibited the following change Chi-square = 12784.729, Degree of Freedom = 4720, CMIN/DF = 2.709, RMR = 0.045, GFI = 0.861, AGFI = 0.817, NFI = 0.796, CFI = 0.902, RMSEA = 0.064.
- \* In the sixth step, the error terms (e91 e94) with MIs 98.747, and expected estimated value of 0.150, on the variable of internationalization has been connected, with modified model named as model 7. The model fit indices were affected as well and exhibited the modified values as Chi-square = 12677.770, Degree of Freedom = 4719, CMIN/DF = 2.687, RMR = 0.045, GFI = 0.874, AGFI = 0.822, NFI = 0.801, CFI = 0.909, RMSEA = 0.064.
- \* In the seventh step, the error terms of the variable network relationships (e75 and e80) with MIs 68.823, having expected estimated change value of 0.281 has been connected, and the model named as model 8. A fair amount of change has been exhibited by model fit indices as Chi-square = 12602.084, Degree of Freedom = 4718, CMIN/DF = 2.671, RMR = 0.045, GFI = 0.882, AGFI = 0.829, NFI = 0.809, CFI = 0.913, RMSEA = 0.064.
- \* In the eighth step, the error terms (e76 and e81) with MIs 27.484, having expected estimated change value of 0.199, on the variable of network relationships, has been connected and model named as model 9. The change exhibited by model fit indices is as follows, Chi-square = 12574.142, Degree of Freedom = 4717, CMIN/DF = 2.666, RMR = 0.45, GFI = 0.893, AGFI = 0.834, NFI = 0.817, CFI = 0.919, RMSEA = 0.064.
- \* In the ninth step, the error terms of the variable network relationships shown as (e74 and e75) with MIs 36.458, and estimated expected change value of 0.175, has

been connected and model named as model 10. The model fit indices have been changed as Chi-square = 12504.916, Degree of Freedom = 4716, CMIN/DF = 2.652, RMR = 0.045, GFI = 0.902, AGFI = 0.838, NFI = 0.824, CFI = 0.927, RMSEA = 0.063.

- \* In the tenth step, the error terms (e27 and 32) with MIs 20.065, and expected estimated change value of 0.182, on the variable of non-financial performance has been connected, and the model named as model 11. The changed model fit indices were exhibited as, Chi-square = 12444.210, Degree of Freedom = 4714, CMIN/DF = 2.640, RMR = 0.045, GFI = 0.906, AGFI = 0.842, NFI = 0.838, CFI = 0.934, RMSEA = 0.063.
- \* In the eleventh step, the error terms (e64 and e86) with MIs 30.632, and expected estimated value change of 0.111, on the variable of government support has been connected. The changed model was named as model 12. The change in model fit indices due to the covariance drawn is shown as Chi-square = 12411.477, Degree of Freedom = 4713, CMIN/DF = 2.633, RMR = 0.045, GFI = 0.911, AGFI = 0.847, NFI = 0.853, CFI = 0.943, RMSEA = 0.063.
- \* In the twelfth step, the error terms on the variable entrepreneurial orientation (e3 and e4) with MIs 151.277, and expected estimated change value of 0.386, has been connected. The changed model with drawn covariances was named as model 13. The changed model fit indices of the model are shown as Chi-square = 12221.604, Degree of Freedom = 4712, CMIN/DF = 2.594, RMR = 0.045, GFI = 0.916, AGFI = 0.850, NFI = 0.865, CFI = 0.952, RMSEA = 0.062.
- \* In the thirteenth step, the error terms (e10 and e15) with MIs 61.732 and expected estimated change value of 0.193, on the variable of entrepreneurial orientation, has been connected. The model with drawn covariances was named as model 14. The change exhibited by model fit indices is as follows, Chi-square = 12151.864, Degree of Freedom = 4711, CMIN/DF = 2.579, RMR = 0.045, GFI = 0.922, AGFI = 0.856, NFI = 0.872, CFI = 0.961, RMSEA = 0.062.

In model 14 all the model fit indices are in recommended acceptable range of good model fit, except NFI. However, some initially hypothesized paths in the full model may be irrelevant as evidenced from their statistical non-significance. While reviewing the table of regression weights containing critical values with their P-values, five parameter paths have been found non-significant from variables entrepreneurial orientation, global mindset, human capital and government support. According to Byrne (2010) p.p 185-190, these non-significant paths need to be deleted from the overall model. Deletion of these paths and the impact shown on model fitness is described as:

|              |      |      |      |      |        |
|--------------|------|------|------|------|--------|
| HC12 <--- HC | .063 | .195 | .321 | .749 | par_90 |
|--------------|------|------|------|------|--------|

The above path on variable human capital up to HC12, with critical ration of 0.321, and P-value against it 0.749, which is more than 0.05. At 95 percent confidence level this path is non-significant. Deletion of this path has changed the model fit indices as Chi-square = 11931.776, Degree of Freedom = 4614, CMIN/DF = 2.586, RMR = 0.045, GFI = 0.931, AGFI = 0.862, NFI = 0.891, CFI = 0.967, RMSEA = 0.062.

|              |       |      |       |      |        |
|--------------|-------|------|-------|------|--------|
| EO15 <--- EO | -.051 | .159 | -.323 | .747 | par_10 |
|--------------|-------|------|-------|------|--------|

The above path from the variable entrepreneurial orientation to EO15, with critical ratio of -.323 having P-value at 95 percent confidence level is 0.747, which is more than 0.05. Hence, is a non-significant path, after deleting this path from the model, indices have been changed as: Chi-square = 11795.070, Degree of Freedom = 3534, CMIN/DF = 2.610, RMR = 0.046, GFI = 0.931, AGFI = 0.860, NFI = 0.898, CFI = 0.969, RMSEA = 0.063.

|             |      |      |      |      |         |
|-------------|------|------|------|------|---------|
| GM2 <--- GM | .003 | .067 | .047 | .963 | par_128 |
|-------------|------|------|------|------|---------|

The above path from the variable global mindset to the GM2, having critical ration of 0.047, with P-value of 0.963 at 95 percent confidence level, which is more than 0.05. Hence, this path is non-significant. Now after deleting this path from the model, following changes has been seen in model fit indices. Chi-square = 11552.630, Degree of Freedom =

4424, CMIN/DF = 2.611, RMR = 0.046, GFI = 0.933, AGFI = 0.863, NFI = 0.920, CFI = 0.963, RMSEA = 0.063.

|             |      |      |      |      |         |
|-------------|------|------|------|------|---------|
| EO8 <--- EO | .096 | .167 | .574 | .566 | par_126 |
|-------------|------|------|------|------|---------|

The above path from the variable entrepreneurial orientation to EO8, with critical ratio of 0.574 having P-value at 95 percent confidence level is 0.566, which is more than 0.05. Hence, is a non-significant path, after deleting this path from the model, indices have been changed as: Chi-square = 11337.116, Degree of Freedom = 4330, CMIN/DF = 2.618, RMR = 0.046, GFI = 0.934, AGFI = 0.864, NFI = 0.902, CFI = 0.973, RMSEA = 0.063.

|             |      |      |      |      |         |
|-------------|------|------|------|------|---------|
| GM1 <--- GM | .047 | .070 | .675 | .500 | par_127 |
|-------------|------|------|------|------|---------|

The above path on variable global mindset up to GM1, with critical ratio of 0.675 and P-value of 0.500. Which is more than 0.05, therefore, at 95 percent confidence level this path is non-significant. After deleting the path following changes has been found in model fit indices. Chi-square = 11084.330, Degree of Freedom = 4237, CMIN/DF = 2.616, RMR = 0.046, GFI = 0.936, AGFI = 0.0865, NFI = 0.926, CFI = 0.966, RMSEA = 0.063.

|              |       |      |       |      |         |
|--------------|-------|------|-------|------|---------|
| GS10 <--- GS | -.042 | .046 | -.906 | .365 | par_129 |
|--------------|-------|------|-------|------|---------|

The above path from variable Government support to GS10, with critical ratio of -.906, and P-value against it is 0.365, which is more than 0.05. Therefore, at 95 percent confidence level this path is non-significant. Deletion of this path has changed model fit indices as follows Chi-square = 10908.563, Degree of Freedom = 4145, CMIN/DF = 2.632, RMR = 0.046, GFI = 0.937, AGFI = 0.0866, NFI = 0.929, CFI = 0.969, RMSEA = 0.063.

Results of this mediating model in figure 4.7 along with the unmediated model in figure 4.6 are used for examining the mediating effect of internationalization on relationships of entrepreneurial orientation with financial and non-financial performance, network relationships with financial and non-financial performance, global mindset with financial and non-financial performance, government support with financial and non-

financial performance, and human capital with financial and non-financial performance. The parameter estimates or path coefficients for all the paths in mediated model at standardized level are shown in table 4.26.

**Table 4.26: Standardized Regression Weights: (Mediated Model)**

| <b>Relationship</b>   | <b>Estimate</b> |
|---|-----------------|
| <b>Internationalization &lt; Government Support</b>               | <b>0.204</b>    |
| <b>Internationalization &lt; Global Mindset</b>                   | <b>0.050</b>    |
| <b>Internationalization &lt; Entrepreneurial Orientation</b>      | <b>-0.078</b>   |
| <b>Internationalization &lt; Network Relationships</b>            | <b>0.062</b>    |
| <b>Internationalization &lt; Human Capital</b>                    | <b>0.397</b>    |
| <b>Non-Financial Performance &lt; Entrepreneurial Orientation</b> | <b>0.474</b>    |
| <b>Financial Performance &lt; Entrepreneurial Orientation</b>     | <b>-0.077</b>   |
| <b>Non-Financial Performance &lt; Network Relationships</b>       | <b>0.644</b>    |
| <b>Non-Financial Performance &lt; Human Capital</b>               | <b>-0.834</b>   |
| <b>Non-Financial Performance &lt; Global Mindset</b>              | <b>0.305</b>    |
| <b>Financial Performance &lt; Network Relationships</b>           | <b>0.087</b>    |
| <b>Financial Performance &lt; Human Capital</b>                   | <b>0.712</b>    |

|  |               |
|--|---------------|
| <b>Financial Performance &lt; Global Mindset</b>           | <b>-0.416</b> |
| <b>Financial Performance &lt; Government Support</b>       | <b>-0.309</b> |
| <b>Non-Financial Performance &lt; Government Support</b>   | <b>0.344</b>  |
| <b>Financial Performance &lt; Internationalization</b>     | <b>0.236</b>  |
| <b>Non-Financial Performance &lt; Internationalization</b> | <b>0.464</b>  |

The mediating model in figure 4.7 shows the relationships of initial variables *viz.* entrepreneurial orientation, network relationships, global mindset, government support, and human capital with mediating variable *viz.* internationalization. In this path of model mediating variable is treated as outcome variable, therefore, internationalization is treated as outcome variable here. In the same model, effect of mediating variable *viz.* internationalization is shown on outcome variables *viz.* financial performance and non-financial performance. This path in the model treats initial variables *viz.* entrepreneurial orientation, network relationships, global mindset, government support, and human capital along mediating variable *viz.* internationalization as predictors, and outcome variables are financial performance and non-financial performance.

The procedure recommended by Baron and Kenny (1986) and Judd and Kenny (1981) to analyze the role of mediating variable on the relationships between other variables has been used to examine the role of internationalization on the relationships between entrepreneurial orientation, global mindset, network relationships, government support, human capital and financial and non-financial performance. The role of mediator is determined as if there is a complete mediation of mediating variable on relationship between exogenous and endogenous variables, the path 'c' will exhibit zero value in the

mediating model. If there is partial mediation, the parameter estimates of path ‘c’ in presence of mediating variable will be smaller than parameter estimate of path ‘c’ without mediating variable. Path ‘c’ from mediated model is compared with path ‘c’ from unmediated model. Zero and non-zero coefficients are used for assessment of mediating effect in overall mediation model, rather the statistical significance values (Baron and Kenny, 1986). Table 4.27 shows all the path coefficients required to examine the mediating effect of internationalization in the model.

**Table. 4.27: Summary of Standardized Paths**

| <b>Model</b> | <b>Path ‘a’</b> | <b>Path ‘b’</b> | <b>Path ‘c’<br/>(mediated)</b> | <b>Path ‘c’<br/>(unmediated)</b> |
|--------------|-----------------|-----------------|--------------------------------|----------------------------------|
| EO-INT-FP    | -.078           | .236            | -.077                          | .087                             |
| EO-INT-NFP   | -.078           | .464            | .474                           | .415                             |
| NTWR-INT-FP  | .062            | .236            | .087                           | .190                             |
| NTWR-INT-NFP | .062            | .464            | .644                           | .702                             |
| GM-INT-FP    | .050            | .236            | -.416                          | -.253                            |
| GM-INT-NFP   | .050            | .464            | .305                           | .277                             |
| GS-INT-FP    | .204            | .236            | -.309                          | -.081                            |
| GS-INT-NFP   | .204            | .464            | .344                           | .439                             |
| HC-INT-FP    | .397            | .236            | .712                           | .350                             |
| HC-INT-NFP   | .397            | .464            | -.834                          | -.636                            |

To examine the mediating role of internationalization on the relationships of different variables path ‘c’ from mediated model has been compared with path ‘c’ of unmediated model. Model path of entrepreneurial orientation internationalization and financial performance has shown smaller parameter estimates (-0.077) in mediated model as compared to parameter estimates (0.087) of unmediated model, indicating partial

mediation of internationalization on relationship between entrepreneurial orientation and financial performance.

In the model path of entrepreneurial orientation internationalization and non-financial performance parameter estimates of path 'c' in mediated model (0.474) are greater than parameter estimates of path 'c' in unmediated model (0.415), this indicates no mediation of internationalization on the relationship between entrepreneurial orientation and non-financial performance.

The model for network relationships internationalization and financial performance has parameter estimates for path 'c' in mediated model (0.087) which is smaller than parameter estimates of path 'c' in unmediated model (0.190), which indicates that internationalization partially mediates the relationship between network relationships and financial performance.

The model path for network relationships internationalization and non-financial performance has parameter estimates for path 'c' in mediated model (0.644) and parameter estimates for path 'c' in unmediated model is (0.702). while comparing, parameter estimates of mediated model and unmediated model, mediated model exhibited smaller parameter estimates than parameter estimates of unmediated model. Therefore, can be concluded that internationalization partially mediates the relationship between network relationships and non-financial performance.

In the model path of global mindset internationalization and financial performance, parameter estimates for path 'c' in mediated model (-0.416) are smaller than parameter estimates of path 'c' in unmediated model (-0.253). This indicates internationalization partially mediates the relationship between global mindset and financial performance.

In the model path of global mindset internationalization and non-financial performance, parameter estimates for path 'c' in mediated model (0.305) is greater than the parameter estimates for path 'c' in unmediated model (0.277). This indicates that, internationalization has no mediating effect on the relationship between global mindset and non-financial performance.



In the model path of government support internationalization and financial performance, the parameter estimates of path 'c' in mediated model (-0.309) is smaller than the parameter estimates of path 'c' in unmediated model (-0.081). This indicates that, internationalization partially mediates the relationship between government support and financial performance.

In the model path of government support internationalization and non-financial performance, the parameter estimates for path 'c' in mediated model (0.344) is smaller than the parameter estimates of path 'c' in unmediated model (0.439). This specifies that, internationalization partially mediates the relationship between government support and non-financial performance.

In the model path of human capital internationalization and financial performance, the parameter estimates of path 'c' in mediated model (0.712) is greater than the parameter estimates for path 'c' in unmediated model (0.350). This shows that, internationalization does not have any mediating effect on relationship between human capital and financial performance.

In the model path of human capital internationalization and non-financial performance, the parameter estimates for path 'c' in mediated model (-0.834) is smaller than the parameter estimates for path 'c' in unmediated model (-0.636). This shows that, internationalization partially mediates the relationship between human capital and non-financial performance.

Thus, none of the paths in model has shown complete mediation of internationalization on the relationship between variables, however, three model paths between entrepreneurial orientation and non-financial performance, global mindset and non-financial performance, and human capital and financial performance have shown no mediating effect of internationalization. Total seven paths between variables entrepreneurial orientation and financial performance, network relationships and financial performance, network relationships and non-financial performance, global mindset and financial performance, government support and financial performance, government

support and non-financial performance, human capital and non-financial performance are being partially mediated by internationalization. The set hypotheses regarding the mediating effect of internationalization in this study are treated as:

**H12a: The relationship between Entrepreneurial Orientation and Firm's Financial Performance is mediated by Internationalization**

While comparing the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated smaller parameter estimates (-0.077) than parameter estimates of path 'c' in unmediated model (0.087). Thus, "internationalization mediates partially the relationship between entrepreneurial orientation and firm's financial performance". Therefore, results of this study provide support for H12a.

**H12b: The relationship between Entrepreneurial Orientation and Firm's Non-Financial Performance is mediated by Internationalization**

Comparing the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated greater parameter estimates (0.474) than parameter estimates of path 'c' in unmediated model (0.415). Thus, internationalization has no mediating effect on "the relationship between entrepreneurial orientation and firm's non-financial performance". Therefore, results of this study do not provide support for H12b.

**H13a: The relationship between Global Mindset and Firm's Financial Performance is mediated by Internationalization**

In comparing the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated smaller parameter estimates (-0.416) than parameter estimates of path 'c' in unmediated model (-0.253). Thus, internationalization

partially mediates the relationship between global mindset and firm's financial performance. Therefore, results of this study provide support for H13a.

**H13b: The relationship between Global Mindset and Firm's Non-Financial Performance is mediated by Internationalization**

In comparing the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with the parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated greater parameter estimates (0.305) than parameter estimates of path 'c' in unmediated model (0.277). Thus, internationalization has no mediating effect on the relationship between global mindset and firm's non-financial performance. Therefore, results of this study do not provide support for H13b.

**H14a: The relationship between Network Relationships and Firm's Financial Performance is mediated by Internationalization**

In comparing the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with the parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated smaller parameter estimates (0.087) than parameter estimates of path 'c' in unmediated model (0.190). Thus, "internationalization partially mediates the relationship between network relationships and firm's financial performance". Therefore, results of this study provide support for H14a.

**H14b: The relationship between Network Relationships and Firm's Non-Financial Performance is mediated by Internationalization**

In comparing the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with the parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated smaller parameter estimates (0.644) than parameter estimates of path 'c' in unmediated model (0.702). Thus, "internationalization partially mediates the relationship between network relationship and firm's non-financial performance". Therefore, results of this study provide support for H14b.

**H15a: The relationship between Government Support and Firm's Financial Performance is mediated by Internationalization**

In comparison, the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with the parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated smaller parameter estimates (-0.309) than parameter estimates of path 'c' in unmediated model (-0.081). Thus, "internationalization partially mediates the relationship between government support and firm's financial performance". Therefore, results of this study provide support for H15a.

**H15b: The relationship between Government Support and Firm's Non-Financial Performance is mediated by Internationalization**

In comparison, the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with the parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated smaller parameter estimates (0.344) than parameter estimates of path 'c' in unmediated model (0.439). Thus, "internationalization partially mediates the relationship between government support and firm's non-financial performance". Therefore, results of this study provide support for H15b.

**H16a: The relationship between Human Capital and Firm's Financial Performance is mediated by Internationalization**

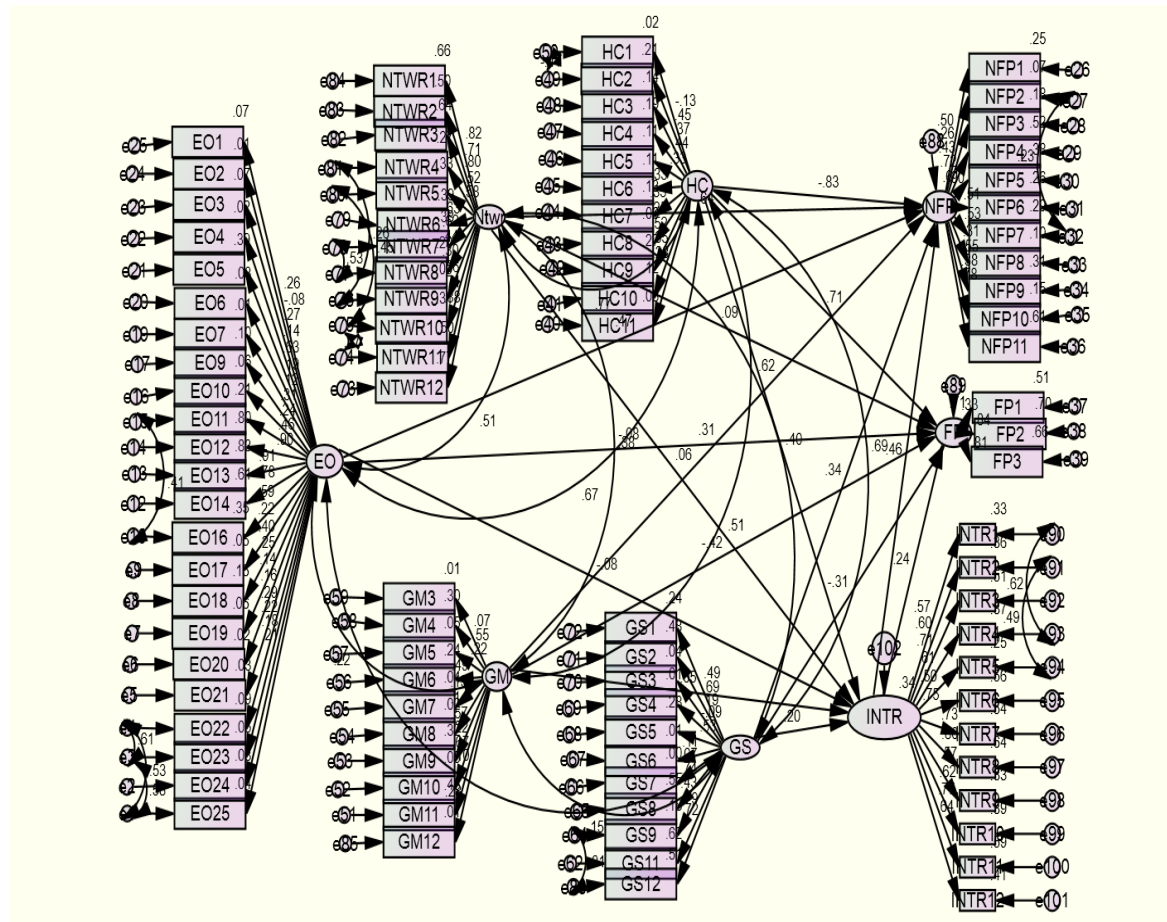
In comparison, the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with the parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated greater parameter estimates (0.712) than parameter estimates of path 'c' in unmediated model (0.350). Thus, internationalization has no mediating effect on the relationship between human capital and firm's financial performance. Therefore, results of this study do not support H16a.

**H16b: The relationship between Human Capital and Firm's Non-Financial Performance is mediated by Internationalization**

In comparison, the parameter estimates of path 'c' from unmediated model shown in figure 4.6 with the parameter estimates of path 'c' in mediated model shown in figure 4.7, it has been observed that path 'c' of mediated model generated smaller parameter estimates (-0.834) than parameter estimates of path 'c' in unmediated model (-0.636). Thus,

internationalization partially mediates the relationship between human capital and firm's non-financial performance. Therefore, results of this study support H16b.

**Figure 4.7: The Path Diagram of Mediated Model**



#### **4.9. Discussion on Results**

Research gaps were identified, and research questions were drawn based on extensive literature review. To fill the identified gaps a theoretical model has been developed and tested empirically to answer the research questions. The model testing helped in determining factors of internationalization in SMEs of Punjab state in India. While answering the research questions, the developed model examined the relationships of entrepreneurial orientation, human capital, network relationships, global mindset, and government support with the constructs of internationalization, and firm's financial and non-financial performance. The relationship between internationalization and firm's financial and non-financial performance has also been examined. Moreover, the relationships of entrepreneurial orientation, network relationship, global mindset, human capital, and government support with the firm's financial and non-financial performance has also been examined with the mediating role of internationalization.

The findings of the study are in line with the findings of some of the previous studies conducted in both developed and developing countries. Present study reveals that entrepreneurial orientation has a positive relationship with internationalization of SMEs, which means entrepreneurial orientation is a determinant of internationalization in SMEs. This is in line with the findings of Zahra and George (2002) which studied this relationship in SMEs of a developed country. The findings are also in support of Zhang et al. (2012) a study conducted on Chinese SMEs. Other similar studies in support of these findings are Dai et al. (2013), Kumar (2012) and Oviatt and Mc Dougall (1995).

On the relationship of global mindset and internationalization, the findings of present study reveal that global mindset has a positive relationship with internationalization or global mindset plays the role of determinant for internationalization in SMEs. These findings are in support of the findings of Miocevic and Karanovic (2012) and Gupta and Govindarajan (2002) who also found that global mindset has a positive and significant relationship with internationalization of Croatian SMEs. Similar results have been found in studies by Kyvik et al. (2013) on Portuguese and Norwegian small firms and Nummela et al., (2004) on Finish small firms. Other studies Kyvik (2011), Fletcher (2000) and Knight

(2001) conducted in countries more advanced in industrial development than India also support findings of present study.

Present study has examined the relationship of network relationships with internationalization of SMEs and found that network relationships have a positive and significant relationship with internationalization of SMEs. In other words, network relationships of SMEs work as a determinant for their internationalization process. Results support the findings of some previous studies on SMEs from both developed and developing countries. Oparaocha (2015) study on Swedish and Finish SMEs, Meng, Rieckmann, and Li (2016) study on Chinese SMEs, Manolova, Manev, and Gyoshev (2010) on Bulgarian small firms, Ibeh and Kasem (2011) on Syrian firms, Zain and Ng (2006) on Malaysian SMEs, Chetty and Holm (2000) on SMEs of New Zealand are in support of the findings of this study. In addition to these, other studies Johanson and Mattsson (1988) and Coviello and Martin (1999) also support findings of this study.

On the relationship of human capital with internationalization, present study has found it to be positive and significant. Therefore, human capital is a determinant of internationalization in SMEs. These findings of the study have been supported by many other studies. A study on Slovenian SMEs by Ruzzier et al. (2007) has found similar results. Other studies in support of these findings are study on Italian manufacturing SMEs by Cerrato and Piva (2010), Goxe (2010) study on Chinese SMEs, and Javalagi and Todd (2011) study on IT small firms of India. However, Onkelinx et al. (2016) supported in case of rapid internationalization of small firms, but not for slow internationalization of firms. In a study by Ruzzier et al. (2013) not all dimensions of human capital have been found determining internationalization of SMEs in Slovenia.

Another relationship examined is the relationship of government support with internationalization of SMEs. It has been revealed that government support is related positively to the internationalization. Thus, government support as a determinant of internationalization in SMEs cannot be ruled out. This finding too is supported by many other studies carried on SMEs from both developed and developing countries. Saad (2014) found government support as a strong determinant of internationalization in Malaysian

SMEs. Other studies in support of these findings are: He (2011) on footwear SMEs of Wenzhou China, Francis and Dodd (2004) on Canadian SMEs, Shamsuddoha, Ali, and Ndubisi (2009) on SMEs of Bangladesh.

Although, present study has found all the five variables as determinants of internationalization for SMEs in Punjab but determining effect of these variables varies significantly. Entrepreneurial orientation has the least effect while, multiple regression analysis exhibits human capital having highest determining effect. Human capital works as a strong determinant of internationalization in SMEs of Punjab, followed by network relationships, government support, global mindset, and then entrepreneurial orientation.

The SMEs from the manufacturing sector of Punjab are mostly dealing with light engineering goods, bicycle and parts, textile, hosiery and woolen items, and sports goods. Punjab has been hub of these industries since long. Skills, experience and knowledge gained by these firms constitutes their present human capital, this can be the possible reason for human capital as a strong determinant of their internationalization. Human capital is the range of valuable skills, knowledge and experience a person has accumulated over time (Burt, 1992; Roos,1998; Becker, 1993; and Coleman, 1988) and international experience is a predictor of internationalization in SMEs (Javalagi and Todd, 2011).

Maximum internationalization is an interesting feature of manufacturing SMEs in Punjab. These firms are least concerned with their domestic markets, a sizeable portion of these firms are not at all involved in domestic markets, and focus on international markets from their very inception, accumulated human capital influences positively to the rapid internationalization of SMEs (Onkelinx et al., 2015, 2016).

Network relationships is the second strong determinant of internationalization as revealed by findings. Possible reason is the organized structure of these manufacturing SMEs in Punjab. These firms are organized into industrial estates and focal points all over the state of Punjab. Ludhiana is the hub of light engineering goods and cycle industry, Jalandhar dominates in sports goods industry, and Amritsar still maintains distinction in textile industry of the state. These industries are well connected to other networks by their



clusters, associations, export zones, industrial chambers etc. both formally and informally. These firms have established network relationships not only in India, but outside too with exporter associations, distributors, suppliers, competitors, brokers, and other third parties directly or indirectly. These network relationships affect positively their internationalization, as networks are of great assistance to entrepreneurs in identifying opportunities in international market, and influences their country selection (McDougall et al., 1994). SMEs take leverage of network relationships for facilitating them at their beginning of international operations, as network relationships of a firm are key motivators of its internationalization process as a firm follows its networks outside domestic markets (Moen et al., 2004 and Zain and Ng, 2006). In addition, network relationships work as a bridge and facilitates firms in international markets (Johanson and Mattsson, 1988).

Government support is the other determinant of internationalization in SMEs of Punjab as revealed by findings of this study. Government support as an external changing agent influences positively to the resource constrained firms. Since 1991 reforms, Government of India has given due attention to export promotion through MSMEs sector in country. Government of India is continuously supporting SMEs for their international business through different programs covering infrastructural building like development of special economic zones, export zones and parks, connectivity to ports. Funding and incentives like SME oriented bank branches, export credit availability through EXIM bank, SIDBI, and other financial institutions, besides funding, insurance covers for international operations of these firms are encouraged. Export promotions like tax exemptions and drawback duties, technical and advisory services, State of Punjab is actively utilizing all such programs and policies of central Government on SMEs there. Besides central government support, state Government of Punjab has initiated supportive programs from time to time like subsidized land for factory, trade fairs, skill development programs, establishment of district industries centers (DICs), state-controlled incentives etc. These supportive programs could be the possible reasons for government support emerging as a significant determinant of internationalization for these SMEs (Shamsuddoha et al., 2009). As these SMEs are small in size and are resource constrained, this is the reason government

support programs effect internationalization directly. Logically the way government can make influence on SMEs is by directly supporting through policies and programmes of assistance to overcome their disadvantage of small size (Smallbone and Welter, 2001). But, SMEs should not rely completely on external assistive programs for international business operations, instead should develop innovative capabilities and competitiveness to mark presence outside India, as government support in excess will make entrepreneurs handicapped to solely dependence on external assistance, which indirectly will turn firms slower and will lead to absence of encouragement for further business development (Idris, 2012).

Global mindset has been found as another significant determinant of internationalization in SMEs of Punjab. Though, it is not determining internationalization as strongly as by human capital and network relationships, but it is a significant determinant of internationalization for these firms. The possible reasons could be clear cut vision of these firms for maximum international involvement that has made managers and other decision makers aware and open to diverse cultures and markets across world with a tendency and ability to synthesize across divides. Experience of these firms in Punjab has helped them to develop global mindset at both firm and individual level with more knowledge about markets, preferences, and competitors outside their domestic market, as there exists a strong and causal relationship between global mindset and internationalization of small firms (Kyvik et al., 2013).

Moreover, the dynamism due to globalization has forced managers and other decision makers to be updated about market changes and preferences, aided by access to advanced information technology services, which resulted in development of polycentric and geocentric mindsets, as globalization is not limited to the communication between states, businesses, people and other inter-organizational interactions, new business models are emerging from changing social-economic, political and environmental aspects with impacts on societies across globe (Friedman, 2005). This dynamism in world has enforced managers and other decision makers of SMEs in Punjab to develop world scanning ability from a broad perspective, to proceed with an international approach for expanding

international business operations. Therefore, global mindset has been revealed as a determinant of internationalization in these SMEs.

Entrepreneurial orientation has been found having least determining effect on internationalization among these five determinants. Though, the effect observed is less, it has been found positive and significant. Therefore, entrepreneurial orientation as a determinant of internationalization cannot be ruled out. Possible reasons for positive effect could be the increased competition and changed market structures for these SMEs is leading entrepreneurs to be creative and innovative from product development and enhancements to the serving of these products in foreign markets. Competitors in manufacturing have emerged from both inside the country and outside like in the textile industry of Amritsar, which was once hub, but now Surat, Gujrat is emerging as an important destination for textile manufacturers. Similarly, Bangladeshi manufacturers are giving a tough competition in foreign markets particularly in European countries. Meerut, Uttar Pradesh is emerging as an alternate hub of quality sports products against to Jalandhar. Industrial estates like Madurai and other southern states compete to Ludhiana in light engineering goods. All this has enforced entrepreneurs of these firms to adopt creative ways for solving challenges in international business.

Other reason could be the Government support programs offered for export promotion through SMEs, these supportive programs like financing and insurance has encouraged entrepreneurs to take uncertain decisions of entering and dealing in foreign markets. This further develops their ability to recognize and pursue market opportunities ahead of competitors irrespective of their limited resources. In addition, entrepreneurial orientation affect could be due to the entrepreneur's social networking activities and relationships with foreign firms, as entrepreneur's abilities of realizing international market opportunities trigger a firm's internationalization (Oviatt and McDougall, 1995). Thus, due to these possible reasons entrepreneurial orientation is found in positive relation with internationalization of SMEs in Punjab, as entrepreneurial orientation plays an important role in facilitating internationalization efforts of SMEs (Zhang et al., 2012).

The possible reasons for entrepreneurial orientation having least determinantal effect on internationalization of SMEs in Punjab could be the over dependence on Government support. As the main aim of these supportive policies and programs is to encourage these firms for taking their business operations to foreign markets successfully. But, these supportive programs particularly related to market research, advisory services, financial services, subsidies and incentives, export promotions in foreign markets, intermediary role by Government institutions, creates an atmosphere of dependency within the organizations and industrial clusters, result in creation of SMEs with low entrepreneurial orientation. As SMEs in developing countries rely heavily on government support which no doubt removes obstacles in their international expansions, but, lowers their entrepreneurial abilities (Hashim, 2012).

The second research question answered in this study is the relationship of internationalization with firm performance in SMEs of Punjab. By performance here both the financial and non-financial performance is meant. While investigating for hypotheses 6a and 6b, findings of this study credibly demonstrated that internationalization is positively and significantly related to firm's financial and non-financial performance. These findings are in line with the findings of Baird, Lyles, and Orris (1994) whose study on small firms concluded that internationalization is positively related to their performance, further suggested these firms can increase their sales return by extending their sales up to foreign markets, directly by their own or through alliancing with other firms. Another study supporting these findings is by Pangarkar (2008) found that higher degree of internationalization in SMEs results in their better performance. Findings of this study also confirm the findings of Contractor, Kundu, and Chin (2003) revealing a positive relationship between internationalization and performance. In consistent with these findings related to positive relationship of internationalization with firm's non-financial performance, Chelliah and Sulaiman (2010) argued that SMEs with international business operations gain ability of creating knowledge, technology and skills, diversification of resources, stimulation of development and growth. Thus, evidences for support of positive relationship of internationalization with financial and non-financial performance.

Thus, the results reveal that internationalization positively affects financial and non-financial performance of SMEs. This direct relationship of internationalization with firm performance indicates that internationalization acts as predictor of performance in SMEs of Punjab. Therefore, findings lead to suggestions that SMEs in Punjab should internationalize their business operations to increase their profitability and growth and make reputation in foreign markets.

Another research question answered in this study is the relationship of entrepreneurial orientation, network relationships, global mindset, government support, and human capital with firm's financial and non-financial performance in SMEs of Punjab. The findings revealed that entrepreneurial orientation has a positive and significant relationship with financial performance of SMEs. These findings are in consistent with the findings of a study by Jin et al. (2017) on Korean SMEs. Other studies in support of these findings are Zahra (1993) and Covin and Slevin (1989).

In analyzing the relationship of entrepreneurial orientation with firm's non-financial performance, the findings reveal that entrepreneurial orientation has a positive and significant relationship with non-financial performance of SMEs. These findings are in line with the findings of some other studies conducted in countries of similar business and industrial atmosphere. Saad (2014) studied on SMEs of Malaysia and found similar results. A study on Chinese SMEs by Ma and Wang (2006) support findings of this study.

Thus, entrepreneurial orientation has a significant relationship with financial and non-financial performance in SMEs of Punjab. Similarly, relationship has been found positive between entrepreneurial orientation and performance of small firms in Sweden (Wiklund and Shepherd, 2005). Therefore, these firms must invest in development of entrepreneurial orientation by training and preparing supporting staff to encourage and assist entrepreneurs of these firms to become more innovative, pro-active, and take risks after proper calculations. In addition to this, from the small business perspective, researchers have predicted a strong positive relationship between entrepreneurial

orientation and firm performance, small size assists and encourages for flexibility and innovations (Wiklund, 1999).

The possible reasons for these findings could be orientation of entrepreneurs owning these firms in Punjab is shaped by their experience, specialized knowledge gained, social capital, and government policies, which makes them to draw monetary gains and lead their firms towards technological learning and competitive capabilities. These entrepreneurs have a general willingness for supporting creativity, introduction of new products, and technological adoption. As, firms achieve new opportunities using entrepreneurial innovativeness as an important mean Soininen et al. (2012). As these firms are small in size and have resource constrains, entrepreneurs of these firms in Punjab remain pro-active for recognizing and pursuing market opportunities ahead of their competitive firms irrespective of limited resources. As, Covin and Slevin (1989) added that to compete with other competitive firms' entrepreneurs initiate uncompromising actions. In addition, with the experience of dealing in volatile and uncertain markets which are vulnerable to both economic and political uncertainties, entrepreneurs of these firms have learnt to take calculated risks to exploit opportunities from prevailing environment. Thus, entrepreneurial orientation leads to strategic orientation in SMEs of Punjab, which helps to perform well financially as well as non-financially.

While examining the relationship of global mindset with firm's financial performance, findings revealed that global mindset is negatively related to financial performance of SMEs in Punjab. This negative relationship has been found significant. These findings are in line with the findings of Saad (2014) study on Malaysian SMEs. However, the findings reveal a positive and significant relationship of global mindset with non-financial performance of SMEs. This is inconsistent with the findings of McDougall (1995) study on global start-ups. Also, Saad (2014) is in support of these findings. This relationship of global mindset with financial and non-financial performance is partially supported for non-financial performance by Nummela et al., (2004).

Thus, from the two relationships of global mindset with firm performance, it is revealed that in SMEs of Punjab global mindset benefits only in achieving non-financial

performance, it leads to competitive capability and technological learning than monetary benefits. It helps in encouraging and valuing global cultural diversity with a degree of strategic cohesion. Development of non-financial performance parameters like acquisition of knowledge, innovative technologies, and competitive capabilities play an important role in enhancing global competitive advantage of these SMEs (Ma and Wang, 2006).

The possible reasons for these findings could be the increasing competition. As these SMEs from Punjab are involved in exporting of their products, from more than one-decade, countries like China, Taiwan, and Malaysia are flowing similar products in these markets and increasing competition with every passing day. As an example, one and a half decade ago, cycle and cycle parts made in focal point Ludhiana were in a great demand in Europe, but, Chinese made cycles have now taken almost whole of this market. Not only this, manufacturers in Punjab have to rely on Chinese raw material imports for this industry now. Since these SMEs are in international business from a long time, with a prepared global mindset now these are trying to innovate and redesign their products according to preferences and tastes of their customers. These firms follow either a host country mindset or a pure global mindset to increase their operations. Earlier the approach followed was generating low operating costs, but there was high risk of losing sales to competitors due to low responses in local markets. Now the changed mindset as a global mindset has led to investing in technological learning and developing competitive capabilities of these firms.

The analysis on relationship of network relationships with financial performance has revealed that network relationships has a positive and significant relationship with financial performance of SMEs in Punjab. These findings are supported by Oparaocha (2015) study on Swedish and Finish SMEs. On examination of relationship between network relationships and firm's non-financial performance, it has been found that network relationships also have a positive and significant relationship with non-financial performance of SMEs in Punjab.

Hence, from the analysis of relationship of network relationships with the financial and non-financial performance of SMEs in Punjab, it is revealed that network relationships have a positive and significant relationship with overall performance of these firms. It leads

to their monetary achievements along with competitive abilities and technological learning. This is further supported by Kenny and Fahy (2011) study on Irish SMEs, Meng, Rieckmann, and Li (2016) in Chinese SMEs, and Musteen, Francis, and Datta (2010) in Czech SMEs.

The possible reasons for these findings could be the inter-firm relationships created through associations and confederations by these firms helps them to develop competitive abilities, learn and adopt technology from peer industrialists, easy influences could be drawn for product designs, packaging, and styles. Further, leverage can be taken from these networks by expanding to both domestic and international markets to increase sales and revenue, which ultimately leads to profitability of these firms. Not only these inter-firm networks, but network relationships with business counterparts, suppliers, distributors, brokers, family, and friends are beneficial in the same way. As networking helps firms in gaining access to resources and other markets, network positions of a firm help in obtaining resources controlled by other firms (Johanson and Mattsson, 1988). Firms are being assisted by networks in exposing themselves to new opportunities, in obtaining knowledge, experiential learning, and draw synergic benefits from pooled resources (Chetty and Holm, 2000).

On the analysis of relationship between government support and financial performance, it has been revealed that government support has a negative relationship with financial performance in SMEs of Punjab. This relationship has also been found significant. However, the findings reveal that government support has a positive and significant relationship with non-financial performance of these SMEs. These results are in consistent with Khalique et al. (2011) study on Malaysian SMEs, Mahajar (2005) study on Malaysian SMEs, and Kang and Park (2012) study on Korean SMEs.

Thus, the results from both the relationships of government support with financial and non-financial performance of SMEs in Punjab reveal that government support helps these firms to attain competitive advantage and technological learning than direct monetary benefits. Saad (2014) supports this in case of non-financial performance. Similarly, a study by Durmusoglu et al. (2012) on Turkish SMEs supports these findings.



The possible reasons for these findings could be variation in the effect of government programs and policies for these firms in Punjab. These government support programs are divided as: programs related to funding and incentives, financial and credit assistance, technical and training assistance, marketing and extension, research and advisory, and infrastructural support. It may be possible from the findings that programs related to funding, incentives, financial, and credit are less effective than technical and training, research and advisory, and infrastructural support. As findings have revealed that government support is related positively to non-financial performance which includes competitive capability and technological learning. Another reason could be the variation in government support programs for these SMEs of Punjab state comparing to other states. As an example, according to Ministry of Micro Small and Medium Enterprises, Government of India, annual report (2017-18), total credit proposals approved in this sector all over India are 2,34,924. Out of these proposals approved from Punjab are only 6418, however, comparing to other industrialized states Tamil Nadu has 27746, Karnataka 18692, Uttar Pradesh 26029, Maharashtra 17552, Madhya Pradesh 16752, Gujrat 8672, and Odisha 10880. Credit guarantees approved (in crores) all over India are 16776.90 cr. Out of these approved credit guarantees Punjab has got only 411.24 cr., however, Maharashtra has got 2074 cr., Karnataka 1733 cr., Gujrat 1347 cr., Tamil Nadu 1585 cr., Uttar Pradesh 1454 cr., Madhya Pradesh 1037 cr., and Odisha 648 cr. In credit linked capital subsidy scheme (CLCSS) MSMEs benefited all over India is 4081. Out of these 365 MSMEs have been benefited from Punjab, 1870 MSMEs from Gujrat, and 593 from Maharashtra. Under the export promotion schemes MSMEs benefited all over India are 2966. Out of these only 114 MSMEs benefited from Punjab, however, 455 from Bihar, 268 from Maharashtra, 243 from Uttar Pradesh, 210 from Karnataka, 211 from Kerala, 149 from Gujrat, and 127 from Odisha.

Government support programs contribute factors related to both firms and managers in determining performance of SMEs, these programs related to market development have considerable influence on their international business operations both

directly and indirectly, however, programs related to finance and guarantee effects only indirectly (Shamsuddoha et al., 2009).

While analyzing the relationship of human capital with financial performance, findings reveal that human capital has a positive and significant relationship with financial performance of SMEs in Punjab. These findings are in line with the findings of Muda and Rahman (2016) study on Malaysian SMEs. However, human capital has a negative relationship with non-financial performance of these firms. This relationship is also found significant. This is supported by Krasniqi and Mustafa (2016) study on SMEs of Kosova.

Thus, the results on the relationship of human capital with financial and non-financial performance reveal that human capital is more beneficial to gain monetary benefits than non-financial performance indicators like competitive capability, technology learning and adoption in SMEs of Punjab. These findings are supported for financial performance by Fatoki (2011) and Durrani and Forbes (2003). Therefore, to accomplish more profitability SME in Punjab need to invest more in human capital. As, there is a connection between organization's success and their investments in human capital. Human capital has become prominent in knowledge economy, knowledge is being considered a major factor for development, individuals with good education and qualifications are becoming driving force for this, Durrani and Forbes (2003).

The possible reasons for these findings could be the present work culture prevalent in SMEs across Punjab. The focus of these firms on mass production, sales, and revenue has attracted workers from other north Indian states, who are settled all around these industrial estates and clusters. It helps these firms to produce at mass level with relatively cheap labor to achieve more financial gains. But, product and technological innovations, designing, packaging, and other competitive capabilities are compromised. In addition, entrepreneurs pay least attention towards skill enhancements, capacity building programs, technological learning, knowledge and education of workers in these firms. As, human capital enhancements and human resource management systems impacts directly and indirectly to the performance outcomes of manufacturing SMEs Teo et al. (2011).

The last research question answered in this study is the examination of mediating effect of internationalization on the relationships between these determinants: entrepreneurial orientation, network relationships, global mindset, government support, and human capital with financial and non-financial performance of SMEs in Punjab. The study employed the procedure recommended by Baron and Kenny (1986) and Judd and Kenny (1981) and findings revealed that internationalization partially mediates the relationship between entrepreneurial orientation and financial performance, global mindset and financial performance, network relationships and financial performance, network relationships and non-financial performance, government support and financial performance, government support and non-financial performance, human capital and non-financial performance. However, this study further revealed that internationalization has no mediating effect between relationships of entrepreneurial orientation and non-financial performance, global mindset and non-financial performance, human capital and financial performance. Interestingly, except human capital, internationalization partially mediates the relationship between all these determinants and financial performance, and in case of global mindset and network relationships internationalization mediates the relationship with both financial and non-financial performance.

## **CHAPTER 5**

### **CONCLUSION, IMPLICATIONS AND FUTURE RESEARCH SUGGESTIONS**

The chapter begins with overall conclusion of the study. Theoretical, managerial, policy, and methodological implications are also given in the chapter. Limitations of this study, and scope for future research is also discussed at the end of the chapter.

#### **5.1 Conclusion**

Internationalization is not a new phenomenon, rather, it has been the subject matter of researchers in international entrepreneurship from a long time. With ease in transportation and advancement in information technology, continued reduction of trade barriers among nations globally, internationalization of small firms at rapid rate particularly from developing countries became possible. Many researchers tried to explain internationalization of small and medium enterprise through different theories and models like Uppsala Model of Internationalization (U-Model), Resource based view theories, Innovation adoption process model (I-Model), Network perspective theories, and International entrepreneurship theories. There is no single model or theory with universal acceptance for explaining the process of internationalization but are critically evaluated by further theories. These theoretical models fell short in properly explaining this complex and dynamic phenomenon, due to lack of variables. It is a general consideration that each theoretical model explains internationalization up to an extent, in a specific context.

This study has followed all these theories and models to understand internationalization in context of small and medium enterprise in Punjab. These theoretical models raises many research questions like are external factors only determining internationalization in SMEs? Are internal factors only determining internationalization in SMEs? Is the combination of these external and internal factors determining internationalization in SMEs? What is the relationship between internationalization and performance of these SMEs? What is the relationship of these external and internal factors

with performance of these SMEs? How the relationship between these factors and performance is being influenced by internationalization of these firms. To answer all these questions this study was conducted on SMEs from manufacturing sector of Punjab.

On basis of literature related to above theories, this study has explored five variables: entrepreneurial orientation, network relationships, global mindset, government support, and human capital with a potential of predicting internationalization, and first, studied their determining impact on internationalization of SMEs in Punjab. Secondly, study examined the relationship of internationalization with performance of these firms, performance has been taken separately as financial and non-financial performance. Thirdly, relationship was studied between entrepreneurial orientation, network relationships, global mindset, government support, and human capital with financial and non-financial performance of these SMEs. In addition, study further examined the mediating effect of internationalization on the relationships between entrepreneurial orientation and financial and non-financial performance, network relationships and financial and non-financial performance, global mindset and financial and non-financial performance, government support and financial and non-financial performance, and human capital and financial and non-financial performance of these firms.

It has been found that all the five variables entrepreneurial orientation, network relationships, global mindset, government support, and human capital act as determinants of internationalization in SMEs of Punjab. But variation has been seen in determining effect among these variables. Human capital among all the five variables has the highest determining effect followed by network relationships, government support, global mindset, and then entrepreneurial orientation. In other words, human capital predicts internationalization more than network relationships, government support, global mindset, and entrepreneurial orientation. Network relationships predicts it more than government support, global mindset, and entrepreneurial orientation but less than human capital. Similarly, government support predicts it more than global mindset and entrepreneurial orientation, but less than human capital and network relationships. Global mindset predicts only more than entrepreneurial orientation but less than human capital, network

relationships, and government support. Entrepreneurial orientation has been found least predicting variable among these five.

Thus, to succeed in internationalizing of business operations these SMEs should focus on development of human resources by providing specific knowledge about new technologies, products, and markets, enhance their skills by special training sessions and capacity building programs and expose them to gain experience by providing assignments related to international business and their active participation in other international business operations. In addition, these firms should recruit employees by assessing their previous knowledge, experience and potential to learn from international business environment. Though, these firms are constrained by limited resources, proper resource management with a due share to development of human capital as intellectual capital should be a prerequisite.

Network relationships should be given due attention to internationalize business by these firms. These firms should develop and maintain connected exchange relationships with different actors on business networks, formal relationships like inter-firm relationships, relationships with distributors, suppliers, competitors, customers, government institutions, and financial institutions, intermediary relationships with third parties who facilitate in establishing the network relationships between buyers and sellers like export promotion organizations and brokers etc. Besides these, informal relationships like entrepreneur's and firm's employee's relationships with family and friends should be enhanced. These firms in Punjab should take full leverage of all these formal, informal, and intermediary relationships to succeed in their internationalized business operations. As an alternative, these SMEs should develop networks or link up with multinational corporations directly or through their subsidiaries to get assisted in achieving speed for their internationalization process. These inter-firm collaborations will significantly help small enterprise in discovering and exploiting business opportunities in foreign markets.

In India government policies are consistently aimed to promote international trade. At the federal level, apex institutions like Export Import bank (EXIM bank), Export Credit and Guarantee Corporation (ECGC), Industrial Development Bank of India (IDBI),

and Small Industrial Bank of India (SDBI) etc. are working to facilitate international business of Indian firms. For promotion of small firms, a separate ministry as Ministry of Micro, Small and Medium Enterprise (MSMES) is working. Similarly, at the provincial level Punjab state is managing facilitation and infrastructural development of these small-scale firms under Ministry of Industry and Commerce. Both central and state government runs policies and programs for promotion of international business of small and medium enterprises.

Government supportive programmes are external changing agents to the corporate sector for successfully expanding businesses and stimulates business activities of domestic firms for further expansions. These small and medium enterprises are characterized as of small size, limited resources and small geographic base, therefore need external assistance for expanding business to foreign markets. SMEs in Punjab should utilize these government support programs to overcome financial limitations by funding, incentives, credit assistance, and insurance. Technical and training assistance by participating in workshops and other training sessions conducted by MSMEs Development Institute, Ludhiana, Confederation of Industrial and Commercial Undertakings (CICU), Entrepreneurship Development Institute in association with associations and chambers, extension, advisory, marketing and market research services, infrastructural supports like clusters of homogenous industries, export-oriented units and export-oriented zones, and all other supportive policies and programs to assist individual entrepreneurial efforts.

Further, both central government and government of Punjab need to pay immediate attention towards shrinking sectors of textile and sports industry in this state. A sectoral policy is needed to widen the space for these two industries to bring them back on blooming track. The sports goods industry of Jalandhar is in dire need of a separate industrial estate, where facilities of transportation, communication, electricity supply, along with subsidized land for unit holders can be make possible.

As different kind of mindset is needed for being a global entrepreneur, and to achieve success, firms need to be seen from global perspective by entrepreneurs, a global culture needs to be instilled in firms, infused in all its business activities. It is required to

shift entrepreneurial focus from organizational structures and systems of administration to mindset-based capabilities. SMEs in Punjab should develop global mindset as a world scanning ability from a broad perspective, in search of trends and opportunities consisting of both threats and further opportunities. As this world is diverse and much volatile, firms in international business or intending to do so, need to scan these diversities and versatilities of target markets. Gone are the days when enterprises copied home country business models and products to other countries. Tastes and preferences are driven by cultural and technological developments. Though technology has integrated the whole world into one global village, cultural diversities are evident from all across the globe, there cannot be drawn a line of similar culture from China to North America via Middle East. In addition, political volatility of nations and economic breakdown of markets can turn all predictions uncertain. Therefore, for these SMEs global mindset of polycentric and geocentric approaches has become prerequisite to succeed in international business.

Entrepreneurs are the whole decision makers in small and medium enterprises, orientation of entrepreneurs influences the orientation of these firms. SMEs in Punjab should develop orientation of these entrepreneurs to be innovative to follow creative ways in solving challenges before them, may include developing new products or enhancing of prevailing products, be pro-active which will lead to a forward-looking perspective of firms with innovations and creation of new ventures and bold enough to take risks, as all business activities are involved with risks of varying degrees, so it will be completely meaningless to assume 'absolutely no risk'. These SMEs should make improvement in their entrepreneurial orientation by wide-range entrepreneurial training, seminars, and mentorship to develop their entrepreneurial skills and mindset. As entrepreneurship training efficiently focuses on individuals or small groups, learning methods comprise team projects, workshops, and peer exchange Garavan and O'Conneide, (1994). Further, Albornoz (2008) suggested that to achieve wide effects the components included in entrepreneurship training should be network analysis, opportunity recognition, business creation and development.



Consistent with other studies this study came to conclusion that internationalization is positively related to firm performance of small and medium firms. It is suggested that by taking products to international markets SMEs of Punjab can increase their sales growth, return on assets (ROA) and return on investments (ROI). Further, these SMEs after internationalization can improve competitive capabilities by creating knowledge, technology, skills, and resource diversification. Internationalization stimulates further growth and development of these small and medium enterprises. As concluded that internationalization positively affects financial and non-financial performance of SMEs. This direct relationship of internationalization with firm performance indicates that internationalization acts as predictor of performance in SMEs. Therefore, findings suggest that SMEs in Punjab should internationalize their enterprises as increase in revenue with growth and reputation in foreign markets are seen as beneficial outcomes.

On examining the direct relationship of these five determinant variables viz: entrepreneurial orientation, network relationships, global mindset, government support, and human capital with firm's performance measured through financial and non-financial performance, it has been shown that the variables entrepreneurial orientation and network relationships are positively related to both financial and non-financial performance of these SMEs. However, human capital has a positive and significant relationship with financial performance only. While, the variables global mindset and government support are positively and significantly related to non-financial performance of these firms. Therefore, these firms should invest in development of entrepreneurial orientation by training, and creating a healthy organizational climate characterized of entrepreneurial flexibility, quickness and innovativeness. Supportive staff should be trained to encourage and assist entrepreneurs to become more innovative, pro-active, and adopt a risk-taking approach. It may be highly valuable for small firms to devote to development of entrepreneurial orientation by recruiting and training, as it yields returns over an extended period of time (Wiklund and Shepherd, 2005). Though, for these small sized firms developing entrepreneurial orientation might be a strategy of cost consumption, it might be treasured

for SMEs of Punjab to devote for recruiting and training with the goal of creating an entrepreneurial environment that has a potential of increasing firm's performance.

Developing of network relationships as an important constituent of social capital should be the priority of these firms. These relationships can be in the form of formal, informal, and intermediary network relationships like inter-firm relationships created through associations and confederations, business counterparts, suppliers, distributors, brokers, family, and friends. These network relationships can help SMEs to develop competitive abilities, learn and adopt technology from peer industrialists, product packaging and designs, to expand to domestic and international markets to increase sales and revenue leading to profitability. As networking helps firms in gaining access to resources and other markets, further network positions of a firm help in obtaining resources controlled by other firms Johanson and Mattsson (1988), firms are being assisted by networks in exposing themselves to new opportunities, in obtaining knowledge, experiential learning, and draw synergic benefits from pooled resources Chetty and Holm (2000).

From the positive relationship of human capital with financial performance of SMEs it can be concluded that human capital should be the focus to increase sales and revenue through returns on investments and assets to attain profitability and growth of these SMEs in Punjab. Apart from mass production, sales, and revenue, attention of these firms needs to be given towards improvement in work culture, product and technological innovations, designing, packaging, and other competitive capabilities. In addition, skill enhancement of workers, technological learning through training and capacity building programs, knowledge and education of workers need to be given due attention in these firms. As, according to Teo, Clerc, and Galang (2011) human capital enhancements and human resource management systems impacts directly and indirectly to the performance outcomes of manufacturing SMEs.

Government support programs are supportive in attaining competitive advantage and technological learning of these small and medium firms. These SMEs of Punjab should strive to take maximum benefits of these supportive policies and programs.

Implementing agencies at both central and state level need to ensure that these policies and programs are implemented properly at grass root level. Though, these programs have been designed specifically to boost both financial and non-financial aspects as programs related to funding and incentives, financial and credit assistance, technical and training assistance, marketing and extension, research and advisory, and infrastructural support, more specificity needs to be adopted to target sectors with high potential of export-oriented products and competitive edge. In addition, some niche sectors should be prioritized like sports industry of Jalandhar. Government institutions and agencies at apex level should provide due attention to the manufacturing sector SMEs of Punjab considering its potential, and contribution in both state and central economy and employment generation. Government support programs contribute factors related to both firms and managers in determining performance of SMEs, these programs related to market development have considerable influence on their international business operations both directly and indirectly, however, programs related to finance and guarantee effects only indirectly Shamsuddoha et al. (2009).

Global mindset helps these firms to develop competitive capability and technological learning by acquisition of knowledge, and innovative technologies to achieve a competitive advantage. It helps in encouraging and valuing global cultural diversity with a degree of strategic cohesion. These SMEs in Punjab should develop global mindset as a world scanning ability from a broad perspective, in search of trends and opportunities consisting of both threats and further opportunities. As a different kind of mindset is needed for being a global entrepreneur, and to achieve success, these firms need to be seen from global perspective by entrepreneurs.

Further this study examined the mediating effect of internationalization on the relationships between these determinants: entrepreneurial orientation, network relationships, global mindset, government support, and human capital with financial and non-financial performance of SMEs in Punjab. The study employed the procedure recommended by Baron and Kenny (1986) and Judd and Kenny (1981) and findings revealed that internationalization partially mediates the relationship between

entrepreneurial orientation and financial performance, global mindset and financial performance, network relationships and financial performance, network relationships and non-financial performance, government support and financial performance, government support and non-financial performance, human capital and non-financial performance. However, this study further revealed that internationalization has no mediating effect between relationships of entrepreneurial orientation and non-financial performance, global mindset and non-financial performance, human capital and financial performance. Interestingly, except human capital, internationalization partially mediates the relationship between all these determinants and financial performance, and in case of global mindset and network relationships internationalization mediates the relationship with both financial and non-financial performance. Thus, in addition to directly predicting the performance of these SMEs, internationalization also plays a mediating role. Mediating role further clarifies the relations between internationalization and firm performance.

Thus, can be concluded that internationalization can enhance the growth and development of SMEs in Punjab by leading to their improved levels of performance. These firms should focus and take maximum advantage of all these determinants viz. entrepreneurial orientation, network relationships, global mindset, government support, and human capital to internationalize. Internationalization will lead to their better performance both financial and non-financial, which will further lead them to sustainable growth and development. The competitive and growing SMEs will contribute to both state economy of Punjab and national economy by more jobs, technology, foreign exchange, and contribution to manufacturing output, exports, and GDP of the country.

## **5.2 Implications of the Study**

### **5.2.1 Theoretical**

Theoretically, this study has been designed to fill up gaps found in previous researches. Many theoretical streams have tried to explain internationalization which resulted into emergence of different models and approaches explaining internationalization of small and medium enterprise like Uppsala Model of Internationalization (U-Model), Resource based

view theories, Innovation adoption process model (I-Model), Network perspective theories, and International entrepreneurship theories. There is not a single model or theory with universal acceptance for explaining the process of internationalization but are critically evaluated by further theories. These theoretical models fell short in properly explaining this complex and dynamic phenomenon, due to lack of variables. It is a general consideration that each theoretical model explains internationalization up to an extent, in a specific context. This study has tried to arrive an integrative model based on above internationalization theories. Study has succeeded in explaining how internal and external environmental factors are predicting internationalization in these SMEs, this has strengthened the applicability of above theoretical models beyond their contexts.

There have been questions on applicability of western concepts of internationalization in developing and emerging countries, like Saad (2014) raised a concern while comparing his study from Malaysia with those conducted in developed countries. But, this study after comparing results with previous studies in both developed and developing countries, found both consistence and contradictions. Thus, applicability of western concepts of internationalization cannot be sidelined in developing and emerging countries and paved the way to further retest these concepts in varied nonwestern contexts to generalize.

This study has further advanced research in SMEs by testing international entrepreneurship conceptual model of Antoncic and Hisrich (2001). The model has been further advanced by dimensional addition in main components of internationalization and performance. The construct of internationalization is added with two more dimensions of speed and scope, while performance included a holistic approach of financial and non-financial components. The study advances research in small and medium enterprises and international entrepreneurship by clarification of specific dimensions and their measurement with introduction of entrepreneurial orientation, network relationships, global mindset, government support, and human capital as determinants of internationalization in these firms. With the model improvement, the study has found positive and significant relationships between internationalization and firm's financial and

non-financial performance which documents and helps to further understand internationalization of SMEs in developing and emerging countries.

The study contributes by addition of new dimensions to variables and empirically testing them. These new dimensions are added to human capital, network relationships, internationalization, and firm performance. The added dimensions have given more inclusiveness to these variables and added conceptual richness in understanding of internationalization in SMEs.

In international entrepreneurship the focus of most of the studies have been on young and high technology industries located dominantly in developed economies, little emphasis has been on international entrepreneurial activities of developing countries particularly in south Asian subcontinent. As knowledge about international entrepreneurial activities from developing countries has received limited attention (Zahra and George, 2002; Keupp and Gassmann, 2009). This study has investigated on a sample collected from Punjab state of India which is a developing and emerging economy, the focus has been on all young and traditional firms from both low and high technology industries.

The study added to the body of knowledge with more determining factors of internationalization for SMEs explored and empirically tested. Significant and positive relationship of internationalization with performance of these small and medium firms, which indicates that with expansion of business operations to foreign markets these small firms perform better not only in terms of financial indicators but also on non-financial indicators. In addition, this study has contributed to the theory about relationships of entrepreneurial orientation, network relationships, global mindset, government support, and human capital with performance of these SMEs. Theory development has been further strengthened by examining mediating role of internationalization on the relationships of these determinants and internationalization of these firms. Thus, in this way body of knowledge has been added with direct and indirect relationships of internationalization with financial and non-financial performance of these small and medium enterprises.

### **5.2.2 Methodological**

Many of the previous studies studying internationalization of SMEs draw their conclusions relatively on small sample sizes (Chelliah and Sulaiman, 2010; Saad, 2014). This study tried to overcome this small sample barriers and included SMEs from four different manufacturing industries from Punjab into sample frame. To give representation of each industry into sample for investigation, total of 800 respondents from 400 firms representing four categories of industries: light engineering goods, bicycle and bicycle parts, textile, hosiery and woolens, and sports goods industry were selected. Thus, study was able to investigate hypotheses and draw conclusions relatively on larger samples than previous studies to better explain the nature of internationalization in SMEs of India.

To measure the variables, this study developed a robust and inclusive approach. All the traditional methods of construct development and their measurement were added with innovative and more accurate new methods to arrive on more reliable and valid constructs. Literature and the context of study helped in item generation, which was further proceeded with the steps of dimension reduction and clubbing, confirmation of these clubbed dimensions, unidimensional and multi-dimensionality, validity by convergence of these dimensions to the main construct and the divergence of these constructs from each other, and finally the dimensional and overall construct reliability. In this study, the constructs internationalization, human capital, and network relationships have been developed. Internationalization construct has been claimed as a multi-dimensional construct and a measurement scale developed. This measurement scale overcomes limitations of all the previous scales in terms of dimensionality, and two more dimensions added to this construct are 'speed' and 'scope'. Similarly, for human capital and network relationships similar procedure has been followed to construct development and more accurate contextual measurement scale.

The procedure developed for scale development in this study has not only been used by this study but has been further adopted by other studies in the varied contexts after one of the scales was published in a reputed journal. The measurement scale of

internationalization developed in this study is in high demand to be used in studies from across the world.

### **5.2.3 Managerial and Policy**

The research findings carry substantial implications for both practitioners of these small and medium enterprises and policy makers of industries and economies at state and national level. The first and the foremost suggestions drawn from findings is that SMEs in Punjab must be internationalized, as internationalization helps in achieving better performance for these firms in both financial and non-financial indicators. Better performance will lead these firms to gain competitive edge in foreign markets.

Since internationalization of these firms augments their performance both financially and non-financially, emphasis of entrepreneurs and managers in SMEs of Punjab should be on determinants of internationalization to these firms, through their entrepreneurial activities like attending training, workshops, and seminars for improvement of entrepreneurial orientation and global mindset. These firms should invest in development of entrepreneurial orientation by training, and creating a healthy organizational climate characterized of entrepreneurial flexibility, quickness and innovativeness.

Developing of network relationships as an important constituent of social capital should be the priority of these firms. Development of new relationships or utilization of existing relationships as a social capital to gain and access resources in foreign markets will make these firms successful and competitive in international markets.

Human capital has been found as an important determinant of internationalization in SMEs of Punjab, so, to draw gains from human capital of the firm for internationalizing, skill enhancement of workers, technological learning through training and capacity building programs, knowledge and education of workers need to be given due attention in these firms. In addition, Governments support programs run by both central and state level Governments like programs related to infrastructure, funding, incentives and insurance, market and advisory, have been found as one of the strong



determinants of internationalization to these SMEs of Punjab, therefore leaders of these firms should strive to take maximum benefits of these supportive policies and programs.

Another implication for practitioners is that management of these firms should be aware about the complexities of internationalization and need of evaluating elements of SMEs internationalization at regular intervals. These elements including skills, competitive capabilities, experience, and management know-how are the attributes of vital importance which entrepreneurs require to build up to successfully internationalize and position these firm's favorably in international markets.

Findings of this study imply policy makers to motivate and encourage SMEs for internationalization as it amplifies growth and development of these firms by increasing revenue, technological adoption, and competitive capabilities, allows these small sized firms to enjoy growth in foreign markets. Assistance to these SMEs is not possible until policy makers will work together with SMEs in determining their unique capabilities, examining foreign markets for identification of opportunities to benefit SMEs in Punjab. Policy emphasis should be on initiatives of motivation and self-assessment which are directly influencing firm's internationalization efforts.

MSMEs sector is the second largest employment provider after agriculture in country, 40% of exports is contributed by this sector only, these entrepreneurial SMEs are considered as an important engine for creating wealth and jobs. Therefore, obligation of providing competitive business and regulatory environment favorable to entrepreneurship, and development of internationally competitive SMEs in Punjab, devolves to Government and policy makers.

While there seems dire need of government support policies and programs to be continued, there should be periodic reviews to these policies and regulations to bring modifications according to suitability of needs and challenges faced by SMEs in enhancing their competitiveness in both domestic and international markets. Relevance should be considered by policy makers to enacted policies and regulations to development of enterprises and promotion of internationalization amongst them.

In addition to above implications based on findings of this study. Since, the study used primary data to investigate the research questions, researcher has personally visited these industries and interacted to entrepreneurs, managers and other workers in focal points and industrial estates across the Punjab state. After survey, interactions, and analysis of the results in this study many more implications and suggestions can be drawn for sustainable growth and development of the SMEs in Punjab. These firms need to adopt completely polycentric and geocentric mindsets to approach into international markets, ethnocentric approach is not going to work anymore. These mindsets will need entrepreneurs and managers to be updated about world markets, diversities, preferences, tastes, economic and political volatilities, cultural and ethical values prevalent in foreign markets, and the much-needed host country regulatory frameworks. To be competitive in international markets traditional models of business are not going to benefit for extended period of time, business model innovations should be core competency of these firms. Alternate modes to exports should be used to operate into global markets like strategic alliances, joint ventures, preferably alliances with MNEs operating, and tie-ups with different institutions in foreign markets. These SMEs should take full advantage of human capital and social capital through networks etc. to overcome the constraints of size and resources. The technology used to manufacture is not up to date, these firms should invest on technological upgradation. Modern marketing practices should be adopted, these firms should devote to creating brand image of their niche specialties. Entrepreneurs and managers should think about outsourcing to achieve cost benefits and specialization effect. Maximum utilization of online mediums to reach masses in a cost-effective way, promoting products through online mediums in international markets is the best alternative available. In the production lines focus needs to be shifted from mass production to quality output. These SMEs need to take consultancy services in carrying out operations efficiently, most importantly these firms need to develop strong links with incubation centers and technological ventures for advanced business models and ideas.

On the policy front Government needs not only to establish more specialized institutions, but also tie ups with private institutions for facilitating business operations of

SMEs in Punjab. Development of industry and cluster incubation centers and promotion of consultancy services for these SMEs. Special sector policy institutions at state level to monitor and implement policies related to special industries. Separate industrial estate for sports goods industry of Jalandhar. Link between academia and industry should be developed to promote policy and industry-oriented research. Startup India and Make in India initiatives should be linked to SMEs to develop potential of international standards. Entrepreneurs should be exposed to world class manufacturing hubs by arranging their visits to these clusters like in Germany and Japan.

### **5.3 Limitations and Future Research Suggestions**

There can hardly be any study without limitations. When there are limitations, there arise gaps, and a need to fulfill these research gaps. Therefore, research limitations lead to future research, and knowledge addition. This study indeed carries certain limitations, which can be taken as basis for research gaps and further research.

The study was limited to manufacturing sector firms only, therefore results cannot be generalized to other sectors. Second, the study has taken only small and medium enterprises as subject, micro enterprises have been excluded from study. Micro enterprises and other small sector units are spread across the country and a large portion of employment generation especially in rural areas is contributed by this sector. It is important to mention here that a micro enterprise in manufacturing sector is one which has investment in plant and machinery up to 25 lakhs only.

Third, data has been collected from SMEs from only one state of India. Therefore, India being an emerging economy with certain distinct features, generalization of results can be limited to the environments similar to Punjab particularly developing and emerging nations.

Fourth, a longitudinal study on variables over an extended period of time, to identify more hidden relationships and explore differences between long and short-term practices and results, has not been carried out.

Fifth, study has taken only five variables as determinants of internationalization explored from literature. There could be many other variables with possible impact, which needs to be explored.

Sixth, the study has adopted country specific definition of SMEs according MSME development act (2006), based on investment in plant and machinery. However, the definitions adopted in majority of the other countries are based on employability and turnover.

### **Future Research Suggestions**

Future research suggestions of this study are given as following. First to understand internationalization of SMEs more precisely quantitative and qualitative methods can be combined. The qualitative methods will study it in depth, better prepositions can be formulated to further operationalize. Simultaneously, quantitative methods will help in empirically testing of these prepositions. Conclusions drawn can be considered more solid in using both qualitative and quantitative methodologies.

This study can be replicated in other contexts to generalize the drawn findings. The integrative model along with all dependent, independent, and mediating variables can be tested in other countries at their varied stages of development to further understand and validate internationalization theories and models. India being a developing and emerging country, it will be much feasible to test this model into countries of similar economic development like Brazil, Malaysia, Indonesia, Taiwan, and even in China.

A longitudinal follow-up study can be conducted on the same SMEs to further test results of this study. Though, longitudinal studies are much expensive and time consuming, but, higher validity can be achieved, as changes and patterns occurred with the passage of time can be studied.

Similar research study can be conducted including SMEs from both manufacturing and service sector. The present study has taken only manufacturing SMEs. Further, research can be extended to include micro enterprises which were left out from this study.

This study has taken five variables as determinants, more variables can be studied as determinants of internationalization in SMEs. Even more dependent variables can be taken along with firm performance.

Moderating effects of cultural variables in their specific contexts can be studied in the same research model. There is scope to study how cultural contexts moderate the relationships between selected independent and dependent variables from this study.

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Directorate General of Commercial Intelligence and Statistics ([dgciskol.gov.in](http://dgciskol.gov.in))

## Appendix I

**Table: Assessment of Normality**

| Variable | min   | max   | skew   | kurtosis |
|----------|-------|-------|--------|----------|
| GS10     | 1.000 | 4.000 | 1.685  | 3.095    |
| GM2      | 1.000 | 4.000 | 1.181  | 2.722    |
| GM1      | 1.000 | 5.000 | 1.078  | 2.601    |
| HC12     | 3.000 | 5.000 | -.041  | -1.482   |
| EO15     | 4.000 | 5.000 | -.305  | -1.907   |
| EO8      | 2.000 | 5.000 | -.413  | .275     |
| INTR12   | 1.000 | 4.000 | -.312  | -.770    |
| INTR11   | 1.000 | 5.000 | .154   | .111     |
| INTR10   | 2.000 | 5.000 | .385   | .274     |
| INTR9    | 1.000 | 3.000 | .013   | -.884    |
| INTR8    | 1.000 | 4.000 | -.050  | -.328    |
| INTR7    | 1.000 | 4.000 | -.068  | -.144    |
| INTR6    | 1.000 | 5.000 | -.048  | .188     |
| INTR5    | 2.000 | 5.000 | -1.492 | 2.883    |
| INTR4    | 1.000 | 5.000 | .024   | .109     |
| INTR3    | 1.000 | 4.000 | -.340  | -.384    |
| INTR2    | 3.000 | 5.000 | -2.208 | 2.142    |
| INTR1    | 1.000 | 3.000 | -.098  | -.433    |
| GS12     | 1.000 | 4.000 | -1.709 | 1.966    |
| GM12     | 4.000 | 5.000 | .687   | -1.528   |
| NTWR1    | 2.000 | 5.000 | -1.674 | 2.332    |
| NTWR2    | 2.000 | 5.000 | -.941  | 1.195    |

| Variable | min   | max   | skew   | kurtosis |
|----------|-------|-------|--------|----------|
| NTWR3    | 2.000 | 5.000 | -1.387 | 1.552    |
| NTWR4    | 2.000 | 5.000 | -1.045 | .655     |
| NTWR5    | 1.000 | 5.000 | -1.284 | .866     |
| NTWR6    | 2.000 | 5.000 | -1.178 | 1.271    |
| NTWR7    | 1.000 | 5.000 | -1.158 | .229     |
| NTWR8    | 1.000 | 5.000 | -1.039 | .207     |
| NTWR9    | 1.000 | 5.000 | -1.030 | .074     |
| NTWR10   | 1.000 | 5.000 | -1.210 | .107     |
| NTWR11   | 1.000 | 5.000 | -1.305 | 1.489    |
| NTWR12   | 1.000 | 5.000 | -1.585 | 2.093    |
| GS1      | 2.000 | 5.000 | -1.582 | 2.999    |
| GS2      | 2.000 | 5.000 | -2.026 | 3.221    |
| GS3      | 2.000 | 5.000 | .785   | -1.129   |
| GS4      | 1.000 | 4.000 | 1.647  | 1.777    |
| GS5      | 2.000 | 5.000 | -1.128 | 2.255    |
| GS6      | 1.000 | 5.000 | 1.483  | .493     |
| GS7      | 1.000 | 4.000 | .511   | 2.238    |
| GS8      | 2.000 | 5.000 | -1.982 | 2.636    |
| GS9      | 2.000 | 5.000 | -.673  | -.683    |
| GS11     | 1.000 | 5.000 | -1.448 | 3.012    |
| GM3      | 4.000 | 5.000 | .253   | -1.936   |
| GM4      | 2.000 | 5.000 | .062   | -1.269   |
| GM5      | 3.000 | 5.000 | -.468  | -1.479   |
| GM6      | 2.000 | 5.000 | -.047  | -.527    |
| GM7      | 4.000 | 5.000 | .253   | -1.936   |

| Variable | min   | max   | skew   | kurtosis |
|----------|-------|-------|--------|----------|
| GM8      | 4.000 | 5.000 | -.138  | -1.981   |
| GM9      | 1.000 | 5.000 | .682   | -.824    |
| GM10     | 4.000 | 5.000 | -.535  | -1.714   |
| GM11     | 2.000 | 5.000 | .031   | -.677    |
| HC1      | 2.000 | 5.000 | -.465  | -.533    |
| HC2      | 2.000 | 5.000 | -.771  | -.667    |
| HC3      | 3.000 | 5.000 | -.264  | -1.424   |
| HC4      | 2.000 | 5.000 | -1.181 | 2.160    |
| HC5      | 4.000 | 5.000 | -.592  | -1.649   |
| HC6      | 2.000 | 5.000 | -.757  | 2.098    |
| HC7      | 3.000 | 5.000 | .167   | -.941    |
| HC8      | 3.000 | 5.000 | -.592  | -1.335   |
| HC9      | 2.000 | 5.000 | -.908  | 2.394    |
| HC10     | 2.000 | 5.000 | -.475  | 1.053    |
| HC11     | 3.000 | 5.000 | -.255  | -1.646   |
| FP3      | 2.000 | 5.000 | -.757  | .882     |
| FP2      | 1.000 | 5.000 | -.370  | -.443    |
| FP1      | 1.000 | 5.000 | -.485  | .327     |
| NFP11    | 2.000 | 5.000 | -.860  | 1.285    |
| NFP10    | 2.000 | 5.000 | -.853  | .898     |
| NFP9     | 2.000 | 5.000 | -.989  | 2.295    |
| NFP8     | 2.000 | 5.000 | -.766  | 2.432    |
| NFP7     | 2.000 | 5.000 | -.455  | -1.061   |
| NFP6     | 3.000 | 5.000 | -.552  | -.901    |
| NFP5     | 2.000 | 5.000 | -1.459 | 2.444    |

| Variable | min   | max   | skew   | kurtosis |
|----------|-------|-------|--------|----------|
| NFP4     | 2.000 | 5.000 | -.965  | .258     |
| NFP3     | 2.000 | 5.000 | -.395  | 2.524    |
| NFP2     | 1.000 | 5.000 | .973   | -.537    |
| NFP1     | 2.000 | 5.000 | -.964  | 1.812    |
| EO1      | 4.000 | 5.000 | -.546  | -1.702   |
| EO2      | 4.000 | 5.000 | .546   | -1.702   |
| EO3      | 2.000 | 5.000 | -.398  | 2.296    |
| EO4      | 3.000 | 5.000 | .160   | -1.427   |
| EO5      | 2.000 | 5.000 | -.728  | 1.317    |
| EO6      | 3.000 | 5.000 | .002   | -1.710   |
| EO7      | 4.000 | 5.000 | -.108  | -1.988   |
| EO9      | 3.000 | 5.000 | -.555  | -1.522   |
| EO10     | 3.000 | 5.000 | -.454  | -1.630   |
| EO11     | 2.000 | 5.000 | -.598  | .122     |
| EO12     | 2.000 | 5.000 | -1.346 | 1.444    |
| EO13     | 2.000 | 5.000 | -1.416 | 1.650    |
| EO14     | 1.000 | 5.000 | -1.161 | 1.331    |
| EO16     | 2.000 | 5.000 | -.871  | .230     |
| EO17     | 2.000 | 5.000 | -.093  | .365     |
| EO18     | 2.000 | 5.000 | -.977  | 1.679    |
| EO19     | 1.000 | 5.000 | -1.251 | 2.031    |
| EO20     | 2.000 | 5.000 | -.415  | .265     |
| EO21     | 4.000 | 5.000 | -.077  | -1.994   |
| EO22     | 2.000 | 5.000 | -.199  | -1.256   |
| EO23     | 1.000 | 5.000 | -.092  | -1.332   |



| Variable    | min   | max   | skew         | kurtosis     |
|-------------|-------|-------|--------------|--------------|
| EO24        | 2.000 | 5.000 | -.977        | .525         |
| EO25        | 1.000 | 5.000 | 1.083        | -.216        |
| <b>Mean</b> |       |       | <b>0.749</b> | <b>1.342</b> |

**Appendix II**  
**Final Data Collection Instrument**

**Determinants of Internationalization and their relationship with performance of SMEs in Punjab**

This survey is a part of my research work. These questions ask about your company's international business and experience. It will not take more than 15 minutes of your time to answer completely all the questions. Kindly request to respond against questions honestly. I will be highly obliged to your valuable time and supportive behavior.

**Section (1)**

For each statement below please tick the number that indicates your agreement or disagreement about how it describes the characteristics of your company, ranging from 1 (Strongly disagree), 2 (Disagree), 3 (Neither agree nor disagree), 4 (Agree) and 5 (Strongly agree).

**Part (A) ENTREPRENEURIAL ORIENTATION**

| <b>S.No</b> | <b>Statement</b>  | <b>Response</b> |
|-------------|---|-----------------|
| 1           | In general, we favor a strong emphasis on technological learning.   |                 |
| 2           | In general, we favor a strong emphasis on research and development (R&D).                                 |                 |
| 3           | In dealing with competitors, we typically seek to avoid competitive clashes.                              |                 |
| 4           | In dealing with competitors, we typically seek new business opportunities                                 |                 |
| 5           | Our products and services are radically different from competitors  |                 |
| 6           | We offer unique benefits to the customer, not offered by competitors.                                     |                 |
| 7           | We provide higher quality products and services than the competitors.                                     |                 |
| 8           | We provide more superior solutions to our customer problem.   |                 |
| 9           | During the last 5 years, our company has entered new businesses.  |                 |
| 10          | During the last 5 years, our company has marketed new products.   |                 |
| 11          | Our competitors typically look to us for leadership.  |                 |
| 12          | Compared to competitors, we are very often the first business to introduce new products or services.      |                 |
| 13          | Compared to competitors, we are very often the first business to introduce new operating technologies.    |                 |
| 14          | Compared to competitors, we are very often the first business to introduce new administrative techniques. |                 |

|    |   |  |
|----|---|--|
| 15 | We believe that combinations of strategies are necessary to achieve our objectives.   |  |
| 16 | We initiate actions to which other organizations respond.   |  |
| 17 | We respond quickly to environmental changes.  |  |
| 18 | We perceive new business opportunities more quickly than our competitors.   |  |
| 19 | In general, we have a strong preference for low-risk projects with normal and certain rates of return.  |  |
| 20 | When faced with uncertain situations, we adopt a bold, independent posture to exploit new opportunities.  |  |
| 21 | We believe that because of the dynamic business environment, it is best to explore the environment gradually through slow, incremental behaviour. |  |
| 22 | We have a strong proclivity or tendency for high-risk projects.   |  |
| 23 | We are willing to make investments in projects that have uncertain outcomes.  |  |
| 24 | We are willing to take higher risk in the exploration of new business opportunities in the foreign markets.                                       |  |
| 25 | We are willing to enter new foreign markets with high probability of failure in an unknown competitive environment.                               |  |

**Part (B) NETWORK RELATIONSHIPS**

| <b>S.No</b> | <b>Statement</b>  | <b>Response</b> |
|-------------|---|-----------------|
| 1           | Networks facilitate and accelerate our firm's internationalization process.   |                 |
| 2           | Network relationships with customers, distributors and suppliers can open new opportunities for our firm in foreign markets.              |                 |
| 3           | Our relationships with customers, distributors, suppliers and competitors assist us in entering foreign markets.                          |                 |
| 4           | Network relationships with customers, distributors and suppliers provided a way to maximize our adaptability to our foreign environment.  |                 |
| 5           | Our relationship with customers, distributors, and suppliers, enable us to access resources controlled by other firms in foreign markets. |                 |
| 6           | We managed to cope with rapid technological changes with support of our network relationships with customers, distributors and suppliers. |                 |
| 7           | Our relationships with friends and family members assist us in entering foreign markets.  |                 |
| 8           | Network relationships with friends and family help us in managing uncertainty risks in the foreign markets.                               |                 |

|    |  |  |
|----|--|--|
| 9  | We feel safe in operating into foreign markets where we have prior friendship and/or existing family relationships.    |  |
| 10 | Our relationship with brokers assists us in entering foreign markets.  |  |
| 11 | Network relationships with brokers help our company in the planning and management of marketing in the foreign market. |  |
| 12 | We managed to integrate our communication structure in the foreign market from our network relationships with brokers. |  |

**Part (C) GLOBAL MINDSET**

| <b>S.No</b> | <b>Statement</b>  | <b>Response</b> |
|-------------|---|-----------------|
| 1           | We almost never change our product or services features for our international customers.  |                 |
| 2           | In our international business dealings, we believe that the “Indian Way” is the best way.   |                 |
| 3           | Most of the time, we try to accommodate the special requests of our international customers.  |                 |
| 4           | It is easy to adapt to unique behaviours and practices of foreigners, especially when they are our customers.   |                 |
| 5           | We can adapt to special needs of customers in different countries.  |                 |
| 6           | Often the ways of our foreign customers are as good as or better than the Indian ways.  |                 |
| 7           | Almost all products at our company must be adapted to meet special needs of each foreign market.  |                 |
| 8           | We should not think of ourselves as just an Indian company but think of ourselves as part of a “global community”.                                      |                 |
| 9           | Cultural values are actually quite similar around the world.  |                 |
| 10          | International business should be done according to universal standards and practices, not according to standards and practices of one or two countries. |                 |
| 11          | People around the world are much more similar than they are different.  |                 |
| 12          | We should make products or services that can serve a global market.   |                 |

**Part (D) GOVERNMENT SUPPORT**

| <b>S.No</b> | <b>Statement</b>   | <b>Response</b> |
|-------------|--|-----------------|
| 1           | Government policies assist our company in operating abroad.                                      |                 |
| 2           | We received financial and credit assistance from the government for our international expansion. |                 |

|    |   |  |
|----|---|--|
| 3  | Training and technical assistance from the government help our company development in the foreign market.                                 |  |
| 4  | We received marketing and market search assistance from the government for our products and services promotions in international markets. |  |
| 5  | The government of India has provided infrastructure facilities for our company's growth and development.                                  |  |
| 6  | Government support programmes on the extension and advisory services improved our company's product quality and design.                   |  |
| 7  | The Indian government supports our company by giving contracts or projects in the foreign markets.  |  |
| 8  | We received substantial subsidies from the government for our international operations.   |  |
| 9  | Our close relationship with the government supports our company's growth and development.   |  |
| 10 | The Government supports our company with an injection of soft loans to assist us to trade out of our difficulties.                        |  |
| 11 | We received substantial tax subsidies from the government for our international operations.   |  |
| 12 | Our close relationships with the government enable us to control over resources available in the international markets.                   |  |

Part (E) **HUMAN CAPITAL**

| <b>S.No.</b> | <b>Statement</b>   | <b>Response</b> |
|--------------|--|-----------------|
| 1            | Employee's higher level of education enables us to enter foreign markets easily.   |                 |
| 2            | In our firm, highly educated employees are always eager to avail opportunities available in foreign markets.                                     |                 |
| 3            | In our firm, employees having knowledge about how to do business in foreign markets are a source for spreading firm business into these markets. |                 |
| 4            | Our employees with international business skills help in locating the potential foreign markets for firm.  |                 |
| 5            | We utilize international business skills of our employees in executing business operations abroad.   |                 |
| 6            | We use international business skills of our employees in removing obstacles and accelerating internationalization process of our firm.           |                 |
| 7            | We utilize the international business experience of our employees in seeking opportunities in foreign markets.                                   |                 |
| 8            | International business experiences of our employees assist us in entering foreign markets.   |                 |

|    |  |  |
|----|--|--|
| 9  | We use international business experience of our employees to cope positively with technological changes prevailing in foreign markets. |  |
| 10 | International business experience of our employees assists us in adopting in foreign market environments.                              |  |
| 11 | We utilize international business experience of our employees in managing uncertain risks in foreign markets.                          |  |
| 12 | International business experience is of great assistance in internationalization of our firm.  |  |

**Section (2)**

**INTERNATIONALIZATION**

The following statements pertain to the extent or degree, speed and scope that your firm is involved in international markets or international business.

(1) Please estimate the percentage increase in your company's total sales as compared to last year.

(I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

(2) Please estimate the percentage of your company's sales from international operations out of last year total sales.

(I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

(3) Please estimate the percentage increase in your company's total sales from international operations as compared to last year.

(I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

(4) Please estimate the percentage increase in your company's total profits as compared to last year.

(I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

(5) Please estimate the percentage of your company's profits from international operations out of last year's total profits.

(I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

(6) Please estimate the percentage increase in your company's profits from international operations as compared to last year.

(I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

(7) Please indicate the total number of your company's market (countries, states).

(I) 0-5 (II) 6-10 (III) 11-15 (IV) 16-20 (V) Above 20

(8) Please indicate the total number of your company's international markets (countries, states).

(I) 0-5 (II) 6-10 (III) 11-15 (IV) 16-20 (V) Above 20

(9) Please indicate the percentage increase in your company's total number of international markets (countries, states) as compared to last year.

(I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

(10) Please estimate how long your company has been actively involved in business.

(I) 0-5 years (II) 6-10years (III) 11-15 years (IV) 16-20years (V) Above 20 years

(11) Please estimate how long your company has been actively involved in international business.

(I) 0-5 years (II) 6-10 years (III) 11-15 years (IV) 16-20 years (V) Above 20 years

(12) Please estimate the percentage increase in your company's international customers as compared to last year.

- (I) 0%-5% (II) 6%-10% (III) 11%-15% (IV) 16%-20% (V) Above 20%

### Section (3) PERFORMANCE

#### Part (I) FINANCIAL PERFORMANCE

The following statements describe your company's financial performance, ranging from 1 (0%-10%), 2 (11%-20%), 3 (21%-30%), 4 (31%-40%) and 5 (above 40%).

| S.No. | Statement  | Response |
|-------|--|----------|
| 1     | Average Return on Investments (ROI) over the past five years period. |          |
| 2     | Average Return on Assets (ROA) over the past five years period.      |          |
| 3     | Average growth of sales over the past five years period.             |          |

#### Part (II) NON-FINANCIAL PERFORMANCE

For each statement below, please tick the number that indicates your agreement or disagreement about how it describes the non-financial performance of your company, ranging from 1 (strongly disagree), 2 (Disagree), 3 (Neither agree nor disagree), 4 (Agree) and 5 (strongly agree).

| S.No. | Statement  | Response |
|-------|--|----------|
| 1     | Our international experience has improved the overall quality of products.                               |          |
| 2     | Our international experience has reduced the cost of our products.                                       |          |
| 3     | Our international experience has made this company a stronger needs provider for all customers we serve. |          |
| 4     | Our international experience has given us an advantage over our domestic competitors.                    |          |
| 5     | Our international experience has raised our overall standard of performance.                             |          |
| 6     | Our international experience has given us access to new production technologies                          |          |
| 7     | Our international experience has given us access to new product design technologies.                     |          |



|    |   |  |
|----|---|--|
| 8  | Our international experience has increased our knowledge about many new technologies.                 |  |
| 9  | Our international experience has changed our beliefs about the benefits of possible new technologies. |  |
| 10 | Our international experience has increased our skills in using new technologies.                      |  |
| 11 | Our international experience has made this company smarter in terms of its operations.                |  |

Name of the Respondent:

Name of the SME:

Designation:

Signature of Respondent

Thank You