STATE OF INNOVATION, INTEGRATION AND PLANNING IN SMEs: INVESTIGATING THE PATH TO SUCCESS

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CERTIFICATE

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Dedication

Dedication To my beloved parents for motivating and encouraging me in every way throughout my academic journey.

Acknowledgement

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Hira Rafique

Abstract

This study has examined the degree of innovation, planning and integration in SMEs of Gujranwala, investigating how these factors contribute to the growth of SMEs in the preview of CPEC. The innovation is found limited to just copy and imitation of new arrival products made by the big companies, furthermore the SMEs also admit the benefits of integration for a business but were found not ready to do requisite investment. As far as planning is concerned, it is mostly done by the owners of SMEs and firms are less likely to invest on human resource development. The lack of resources and unavailability of structured government support are also the reasons why the SMEs are lacking in innovation, integration and planning. Furthermore, the SMEs perceive CPEC as a threat and think that the local businesses cannot survive in the presence of Chinese products in the market. However, majority of the SMEs were unaware about the CPEC details and its benefits to the country. The only benefit that SMEs owner think that they can get from the CPEC is "trading" (middleman business). However, in this regard government should come forward and create awareness about the CPEC and should curtail the prevailing myths about it.

Table of Contents

CHAPTER 4

CHAPTER 5

List of Tables

List of Figures

Chapter 1

INTRODUCTION

Currently, small and medium enterprises (SMEs) are playing a critical role in every economy of the world (SMEDA, 2019, Liong et al., 2016). For the development of an economy and its industrial sector Small and Medium industries are very important because these provide jobs to the nation and reduces the poverty line and improve the standard of living of a society (G.o.P., 2019). SMEs is proved to have an important role in terms of sustainable economic development (Hassan, et al., 2018 and Ahmed, et al., 2018).

Analyzing the global trend, India and China are considered as successful models of economic development in the world. India will become third largest economy in Asia. Industrial sector in India had drastically grown which provides 45% employment to their masses while China has become the world's second largest economy and they have transformed the large numbers of Public sector institutions into small and medium industries as a private entity through which 86% of employment has generated in these industries and contributed to the 60% in GDP of China. Similarly, Japan which is a developed nation; it has 4.2 million SMEs with an engagement of work force of 20.84 million. (National SME Policy, 2019)

According to the National SME Policy (2019), more than 38 million SMEs are operating in Pakistan where 0.8 million are industrial units out of it. Out of the given SMEs, 41% units are in urban areas and 59% are set in rural areas. There are 1.2 million SMEs involved in services sector whereas 1.8 million are commercial and retail shops. Small Medium Enterprises Development Authority (SEMDA) was established in 1998 in Pakistan for the development of SME's. SMEs are more in numbers, create more employment opportunities and have greater probability of

success. According to World Bank's "Doing Business" report Pakistan ranked 108 out of 190 countries in 2020 (World Bank, 2019-20). According to Economic Survey of Pakistan (2019), 90% businesses are SME in Pakistan (SMEDA, 2019) and small businesses are very important for developing countries (Rao, 2014; Ratten, 2014; Hyder and Lussier, 2016).

The main downsides of SME sector are that majority of the SMEs are unregistered, they have limited capital, engages low level of technology and faces shortage of loans due to higher interest rates (National SME Policy, 2007). Two years back, State Bank of Pakistan ensured conformity in Rules and Regulations for getting loans at the interest rate lower than 18% to 20% as for corporate sector but Chairman of FPCCI Standing Committee for Banking, Credit & Finance demanded the Governor of the State Bank of Pakistan to create separate rules of loans for Small Scale Industries. Unfortunately, the banks still offer loans to SMEs on 18% to 20% (National SME Policy, 2019). That's why SME's are not growing in Pakistan despite the fact that SME sector is generating 80% non-agriculture employment and annually contributing 40% in GDP, globally SME share in GDP is 55% (Global Entrepreneurship Monitor, 2012).

Currently initiatives are being taken by public as well as private sector to encourage SME's. As per 2016 survey, nine microfinance banks are working to help finance small businesses. For the young entrepreneurs, government of Pakistan started a program "the Prime Minister's Youth Business Loan Scheme". The aim of it to encourage the young entrepreneurs to start their own businesses. Through this program 3.7 billion rupees will provide to new entrepreneurs (Hyder and Lussier, 2016).

Despite policy measures needed on the part of the government, there are certain steps required from the enterprises and businesses as well. These relates to their capacity to be competitive so that they can strive for better and sustained business outlook. Among the most important measures

on the part of enterprises is to bring innovation to their products and to integrate with up and down stream to become part of efficient value chain. To achieve the given efficiency status, the element that is most important is to have a proper, efficient and functional planning department at an enterprise.

Innovation has been viewed in different ways. The concept of innovation still cannot be concluded despite large number of research works. It is claimed that the role of government, entrepreneur, other institutions and suppliers should be given substantial weight instead of assuming a simple technology-push/market-pull paradigm (Haque, 2007). Hence, supporting a systems/process approach, there is a need to study innovation especially in the case of Pakistani SMEs taking into account the local viewpoint.

For the period of economic distress, strategic management possibly be useful for SME's because they need strategies to survive. Wheelen and Hunger (2008) concluded that most of the SMEs have strategic planning. Additionally, SMEs appears to favor active strategies such as corporate growth strategies and differentiation for their business strategies (Hin, et al. 2013). Okamuro, et al. (2019) found that SMEs are subject constrained in the internal resource such as, human capital, human resources, and knowledge of small firms. SMEs normally have disadvantage in the R&D and innovation in comparison to larger firms. The gap between various public policies have been implemented in the financial networking and to support programmer. Hence, there is need to evaluate the effectiveness of that policies based on empirical evidence and purpose a better policy framework for SMEs R&D and innovation, which the current study tries to investigate.

To strengthen SMEs and businesses in CPEC outlook, many policy measures have been announced by authorities with the development of Export Processing Zones (EPZs) and Special Economic Zones (SEZs). SMEs development has been slow in Pakistan for which CPEC can act as a cure.

Through CPEC, the existence of Chinese expertise along with prevailing opportunities in Pakistan in terms of exports, land, agriculture etc. can eventually give improvement to the presence of SMEs in Pakistan. CPEC has already concerned many investors from across the country as well as the globe. CPEC is a way forward for the economic revival of Pakistan and investment prospects are highly favorable for the local and international SMEs in the country (Ahmad, 2018). Still, there is need to check upon our capacities to strive through the potential competition heading our way. And this research is one contribution towards the said objective.

1.2. Need to Strive for efficiency after China Pakistan Economic Corridor (CPEC)

The China Pakistan Economic Corridor (CPEC) is of high importance being a mega development project started in 2013. The purpose was to connect Gwadar Port (in south-western Pakistan) to China's north-western autonomous region of Xinjiang, through network of railways, highways and pipelines to transport oil and gas. Furthermore, there is a plan involved in laying the foundation for regional cooperation, improving economic growth, development of Gwadar port, investing in transporting, mining, telecommunication, industrial parks, offering trade diversifications and creating political flexibility. The plan has a vision with world-changing implications, an explanatory plan that would connect Asia, Europe, Africa, Oceania and the Middle East, all together through a patchwork of diplomacy, new infrastructure and will create free trade zones.

Pakistan and China have signed an agreement to commence work on the estimated $45.6 billion agreement, highest foreign direct investment after 9/11. As part of CPEC, industrial estate/special economic zone fortified with all basic infrastructure facilities i.e. electricity, gas, roads, sewerage system, emergency services etc. is developed in each province of Pakistan. It also provides opportunity to local industry especially SMEs' to get access to international markets for their products or to produce raw material at low rates. The above stated facts also help the industry

especially SMEs' to reduce the cost of production resulting in export potential at competitive prices (PSIC, 2015-16). Now the question is how prepared our firms are for the emerging opportunities. This will be answered by investigating their capacity and strength to harness the budding business opportunities in Pakistan.

1.3. Problem Statement

The concept of SMEs and their operation is not new to Pakistan as it is at work since decades. Though the number of SMEs are increasing but what makes a firm different in terms of success is its capacity to innovate, plan and the degree of integration it practices. Keep in view the foreseeable future in the wake of CPEC (where Chinese and international firms will be operating in Pakistani market), the purpose of this study is to examine the degree of innovation, planning and integration in Pakistani Small and Medium enterprises and to investigate how formal setting contribute to the growth of SMEs. Until now the focus has remained on the supply side factors where firms are asking the policy makers for favorable business environment through elimination of unnecessary obstacles and improving ease of doing business. Nevertheless, the researcher also need to assess the firms' management side factors like planning, marketing and technology related investments by firms to improve SMEs competitiveness, productivity and capacity. Therefore, this study will investigate the research gap for the degree of innovation, planning and integration in the SMEs of Gujranwala.

1.4. Significance of the Study

This research will examine SMEs innovations, integration and planning mechanisms and analyze the situation in context with CPEC and the resulting competition that Pakistan has to witness. This study will identify potential of SMEs based upon business trade analysis in district Gujranwala. There has been a gap between the desired level of SMEs innovation, integration and planning. To develop SMEs sector it has become imperative to initiate new efforts with a right policy and institutional focus. This will make Gujranwala SMEs competitive in local markets and international markets and fulfill the multiple agenda of employment creation increase from the present i.e.80%, new enterprise development, export promotion rises from current state of 23% and contribution to value addition. The SMEs innovation, integration and planning will result in creation of innovative and sustainable SMEs besides developing enabling environment for existing SMEs. Cumulatively, the government can achieve SMEs innovation, integration and planning goals in systematic way.

1.5. Objectives of the Study

This study will assess the SMEs working in electrical appliances sector in district Gujranwala.

- To gauge the innovative capacity of the SMEs in Gujranwala
- To investigate how much our SMEs are integrated in terms of domestic and international supply chains.
- To assess how future planning takes place in SMEs in Gujranwala, hence to explore the knowledge management and innovation capacity systems in SMEs

1.6. Research Questions

The following questions define the quest for investigation of our study.

Q1) How innovative SMEs are in Gujranwala?

Q2) How many products are introduced since the last 5 years in our sampled SMEs?

Q3) How many firms are providing inputs/raw material to the sampled firm?

Q4) Who are the customers of products being produced by the SMEs in Gujranwala?

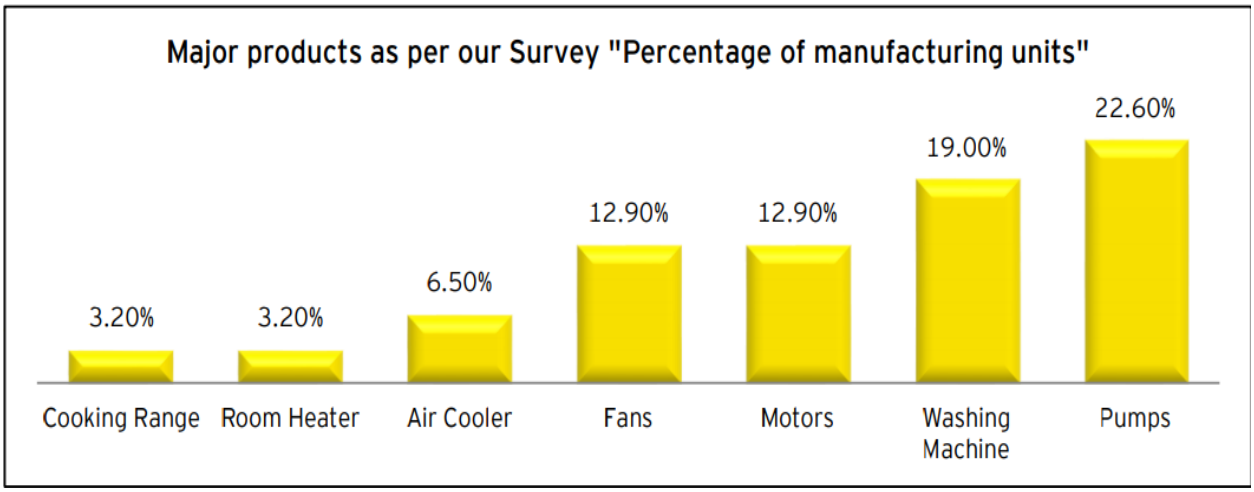
Q5) What is the strength and capacity of SME's HR section to gauge firm's status of planning?

Q6) How do firms plan and execute their activities concerning sustained production and progress?

1.7 Rationale for selecting Domestic Electrical Appliances in Gujranwala

Gujranwala is famous for producing Domestic electrical appliances. Electrical appliances industry originated from fan and metal industries. Metal and steel products were being produced in Gujranwala since very early times and Gujrat was famous for producing fans, with the passage of time skills transferred from Gujrat to Gujranwala and industry evolved into Domestic electrical appliances industry. Industry got real momentum in 70s when Climax Engineering Company started producing high quality products. e.g. Air conditioners, Fans, Motor etc. electrical appliances industry of Gujranwala is engaged in producing Fans, Washing machine, Spin dryer, Room air cooler, Stabilizers, Tube lights fittings, Electric heaters, Electric geysers and Ovens etc (PSIC, 2015-16)

Figure 1.1: Major Products in Gujranwala



Source: Report of Punjab Small Industries Corporation Government of Punjab 2016

Figure 1.1, show that the major product as percentage of manufacturing unit, whereas Cooking Range and Room Heater are showing very low level percentage as per unit 3.2% which is less than all others manufacturing units. Air cooler is 6.50%, Fans and motors are same percentage of manufacturing units 12.90%, Washing machine is the second largest manufacturing units which are 19.00% and Pumps is the largest manufacturing unit is 22.60%.

1.7.1. Units and Trade of Domestic Electrical Appliances

Gujranwala has 433 Domestic Electrical Appliances units. Units are scattered in various areas of Gujranwala. (PSIC 2015-16). Major production of the cluster is being sold in all over Pakistan and few players are also involved in exporting products to Middle East, Africa, Afghanistan and Bangladesh, Export Sales 23% and Local sales 77%. Local sales are almost 28% units have their main markets within the province; about 23% units have their main market within the district; and Remaining 49% have markets in other provinces as well. Significant competition has been observed from china in domestic electrical appliances products within Pakistan as their products

have better designs and quality as compared to products produced in Gujranwala. China is producing high quality products with cost efficient strategies (PSIC 2015-16).

Chapter 2

REVIEW OF LITERATURE

Many researchers have found an evidence that there is an association between Innovation, integration and planning on Small and medium enterprises. This section presents the literature to explore the impacts on SMEs performance.

2.1 Innovation

Innovation definition proposed by Freeman (1982) & Bessant and Tidd (2007), is that "*innovation in the manufacturing sector, as the technical, manufacturing, design, management and commercial activities involved in the marketing of a new product or the first commercial used of a novel process or equipment*". Innovation manages to the culture of creating something new and valuable whether a new product or service, production process, structure or administrative system (Hult et al., 2004; Tseng, 2014) Innovation provides the base for future sustainability. Different studies have found innovation to be the main driver of firm's competence and potential. Hauptman and Roberts (1987) suggested that if through technology creating a new innovative product, then many time market products may be required. "Defender" type firms would emphasize their process R&D capability in order to increase their level of process innovation, thus reducing their manufacturing costs, improving the quality of their products and services and, by the same token, preserving their existing markets (O'Regan and Ghobadian, 2005). The multi-faceted nature of the relationship between innovation and business outcomes in SMEs reveals that making the right innovation decision is crucial in securing the desired performance outcomes in a context of limited resources for innovation (McGrath, 2001).

Larger firms recognize the innovation of smaller firms which often tap the creativity that not only made it competitive but also nurture growth. Single and multiple ownership can be classified in terms of investigating firm's innovation, finding single holders to be more innovative and presenting larger entrepreneurial orientation (Miller et al., 2011) and spending more on innovative factors, such as increased productivity and R&D (Block, 2012). Some studies found that Technology is an important variable for SME growth which is critically questioned for the business capital to SME Startups and internationalization process. (Chong, 2012)

Classen (2014) found that the difference among the non-family and family business firms in perspective of innovation, product, investment and process labor productivity and innovation outcomes. Data was used Mannheim Innovation Panel and 18.51% data was collected through questionnaire and 15.52% interview on telephones. The probit estimation was used which shows inconsistencies in every step of innovation process

Allen (2018) found that various challenges have been faced by businessman in the processes of integrating and sustaining disruptive innovations, in resulting researcher failure to achieve expected profitability and efficiency. Pierre, & Fernandez, (2018) examined the innovation of capacity in the specific context of SMEs. They collected the data by interviewing CEOs and managers of SMEs. The innovation of capacity is particular hard to define SMEs as most of their innovation activities are informal and merged in the overall firm activates. This study delves deeper into SMEs innovation. In reference to Europe Expositor, Sanchis-Llopis (2019) found relevant managers and innovation decision-makers when designing innovation strategies to foster the business performance of SMEs.

Chege & Wang. (2020) found that the establishment of sustainable practices in developing and developed countries and also evaluating the relationship among the environmental sustainability,

technology innovation and its effect on small business performance. They took samples of small businesses and in the analysis they were used hierarchical regression models, in results technological innovation distresses globally responsive owners who have optimistic impact on the performance of the company

2.2 Integration

Integration have increased competition in both domestic and global markets, and started new models of global business. The most functional and universal of these models has been the growth of global value chains or production networks. Jitpaiboon (2005) presented the Information system integration utilization for supply chain management to enhance the firm's competitiveness. The effect of strategic, operational and Infrastructure can help to understand that how ISI performance contributes to overall supply chain effectiveness.

Swafford et al., (2008) investigated the process of integrated permit for the reshaping of novel information. This process leads to prompt response to environmental changes and thus increases the organization's flexibility. Cannon et al., (2010) memo that higher level of integration, firm performance will be improved and the improved firms will respond to their business challenges technologically, strategically and operationally. Fain et.al (2011), Examines the effect of R&D-marketing integration in SMEs in rising economies. Data were collected from Slovenian SMEs through a questionnaire. The analysis was the effect of R&D-marketing integration on NPD achievement with correlations analysis and factor analysis. In result parallel effects of organizational climate on the cross-functional integration gap and NPD achievement in Slovenia.

Raymond et al., (2013) took data through questionnaire of SME manufacturers. The firm's innovation capacity found positive relation to the manufacturing production of SMEs and the result shows paradoxical effect on IT integration and IT integration was seen to have disability effect on

the same capacity with regard to productivity. (Evans et al., 2017; Sarkar & Pansera, 2017; Wan et al., 2015) said that businessmen are stressed to integrate innovations to create a stable, flexible and competent environment for concerned stakeholders

Integrated organizations that work together on a systematic basis to continuously improve the way that they deliver projects and services. Khalique (2015) examined the associations between organizational performance and intellectual capital in SMEs at Pakistan. A sample was collected through questionnaires. The overall regression model of intellectual capital showed goodness of fit while one component i.e. human capital was insignificant.

Pooe & Mahlangu (2017), investigating the influence of collaborative planning, supply chain integration and firm performance and supply chain capabilities on SME competitiveness in the Sedibeng municipal district area. The quantitative method was used. Data collected from SMEs, the analysis by structural equation modelling using AMOS 22.0 statistical software package and means of confirmatory factor analysis. They found that SMEs can progress their own performance by planning collaboratively, by investing on supply integration tools and by developing supply chain capabilities

Khalique et al. (2018) validated the integrated capital model by investigating the relationship between organizational performance and intellectual capital of SMEs at Malaysia. A sample was collected through validated survey instrument administered. The results verified that human capital, customer capital, etc. all were associated to organizational performance.

2.3 Planning

Literature on relationship between planning and SME came into highlight mostly in early nineties. The review aims to explore how SMEs are applying to strategic planning within the scope of their business activities. Innovative position is basically the innovative strategy that is structured by a firm where competitive environment, resources and its competencies matters (Dyer & Singh, 1998; Helfat & Peteraf, 2003; Teece et al., 2007; Tidd et al., 2013). Better results are observed when SMEs are having formal strategic design and planning. (Mazzarol et al., 2009; Berman et al., 1997) then they achieved the better innovation objectives (Terziovcki, 2010). Wang (2006) used a self-administered questionnaire to survey small business operators in Western Australia. Factor analysis resulted that Motivations for small business ownership are diverse and significantly influence how operators manage their businesses.

Stonehouse and Pemberton (2002) took a survey of SMEs from the both manufacture and service sectors. They found that mostly business planning was seen with the exception of financial management, in large scale businesses. Veskaisri (2007) investigated the linkages between strategic planning and SME growth in Thailand. The results exposed that using the analysis of ANOVA, certain demographic variable (age and education level,) are positively and significantly associated with the decision to use strategic planning.

Khalique et al. (2011) identified the major problems of SMEs in Pakistan considering it a knowledge based economy. The SMEs play vital role in the economy growth of Pakistan. SMEs facing issues creates serious threats for the survival of SMEs in Pakistan. The study concludes that at the beginning of the twenty first century the conceptual and intellectual capital has gained the significant attention of knowledge based economy. Ramanathan & Gunasekaran (2014), for supply

chains to be effective, decision making, planning and performance need to become crucial components of collaboration

Marchesnay (2014) found that the progress in competitive and technological environments in Strategic market scanning has reduced the dependency risks in SMEs' value chain and its vulnerability. Iqbal, & Farooq, (2018) investigated the impact of capital structure on the financial performance through evaluating the relation between in different variables such as, net profit margin ratio (NPM), total assets (TA) with capital structure variables being short term debts etc. The researcher found that the organization of commercial sectors had a strong positive relation with financial performance of a firm and its capital structure.

Lee (2019) used survey and interview data on Korean SMEs. It mainly focused on International R&D Collaboration between the SME. A logic model was implemented to classify the possible measures to the performance of R&D association. The researcher's findings were anticipated to provide a R&D strategy at firm as well as at the national level. Okamuro et al. (2019) found that SMEs are subject to constrained in the internal resources such as, human capital, human resources, and knowledge of small firms. Such as SMEs have disadvantage in the R&D and innovation with compared to larger firms. The study evaluates the effectiveness of that policies based on empirical evidence and purpose a better policy framework for SMEs R&D and innovation.

Pauli, (2020) evaluating the training process, the concept of 'training professionalization' was applied to identify the scope and specificity of actions undertaken. It states to formal training which must contain of planning, evaluation, assessment and execution. Data analysis confirmed that the training process in SMEs is usually undeveloped, some companies were implemented. In result higher outcomes and an increase in almost all estimated performance indicators. Bokhari et.al (2020) found that succession planning specify a positive and significant relationship with business

sustainability. Data was collected through survey base and structural modeling technique was used. The result has exposed that organizational improvisation moderates the relationship between sustainable business, succession planning, and strategic flexibility.

Hence, there is evidence that innovation, integration and planning are the essential contributors to firms output and performance. Therefore, the current study will add evidence to the literature in the context of Pakistan's readiness for competition emerging in wake of CPEC by investigating the SMEs in Pakistan.

Under the CPEC there are various economic zones planned in the various parts of Pakistan. The economic zones comprise of Rashakai Economic Zone , Dhabeji Special Economic Zone, Bostan Industrial Zone, Allama Iqbal Industrial City in Faisalabad, ICT Model Industrial Zone in Islamabad, Industrial Park Pakistan Steel Mills at Port Qasim, Mirpur Industrial Zone in AJK, Mohmand Marble City and Moqpondass SEZ in Gilgit-Baltistan. These special economic zones are going to have automotive, auto parts, motor bikes assembly, textile, garments pharmaceutical, steel, marble, granite, halal food and other fruits & vegetable processing and other mix industries (cpec.gov.pk). Ahmed et al, (2018) identify that SMEs function with small amount of resources (man and material) and also need relatively less capital. The SMEs are easy to manage and are more number to, therefore have multiplying effects on the national economy. Such small entities are of decisive importance for the development of a country. CPEC provides conducive environment for SMEs to flourish in Pakistan as the emerging business are drinking water supply, fresh fruits/dry fruits processing industries, transportation, fuel stations, hotels industry, bilingual legal consultation firms, cattle farming and many more.

Chapter 3

RESEARCH METHODOLOGY

3.1. Methodology

The data is survey based and adopted qualitative analysis approach to conduct thematic analysis based on study's objectives. Section below contains relevant details on the construction of variables and the given thematic aspects.

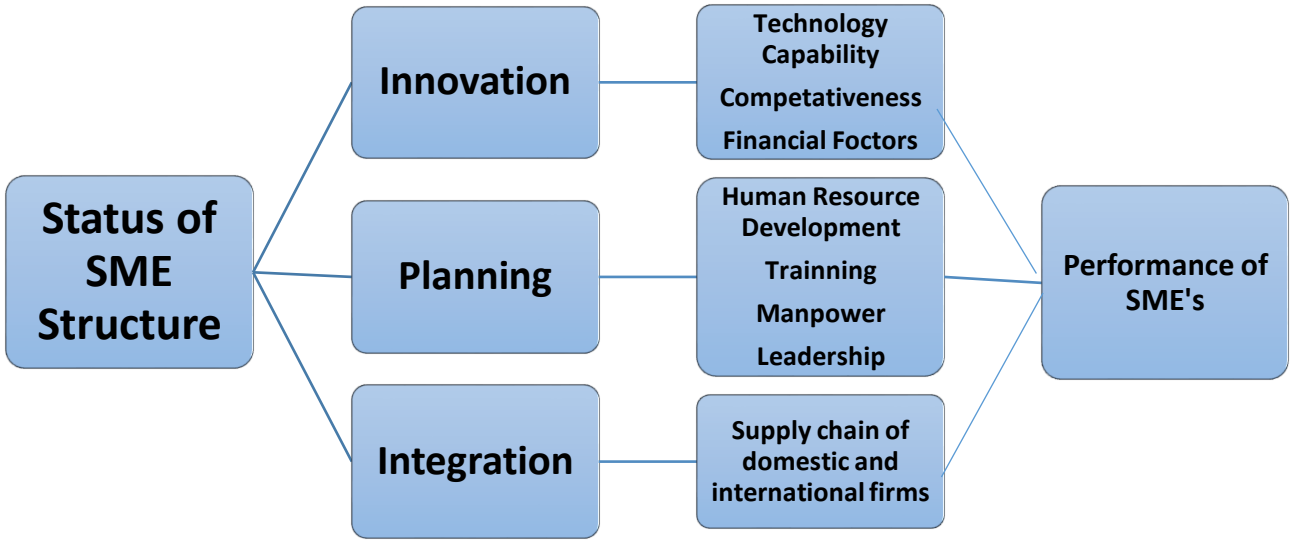
3.1.1. Innovation: Innovation is when a firm wants a positive change in their businesses then they introduce new procedures, products or services. This can comprise improving prevailing procedures or practices. Eventually the goal is to revive a business, creating new value and increasing growth and productivity The SMEs innovation is measured through the technology capability, competitiveness and financial factors. The technology capability is measured through the firm's technological strength and gives the opportunity to create competitive advantage; competitiveness will be measured through the ability of a firm to successfully compete in a given business environment; and financial factors is also measured through the financial performance of the business, that the information of different financial aspects such as, revenues, capital, expenses and cost of goods. Moreover, the researcher asked about the products introduced during the last 5 years to gauge firm's innovation capacity.

3.1.2. Planning: The SMEs planning is measured through the Human Resource Development, Manpower, Training and Leadership. Human Resource Development is measured through training, organizational effectiveness, management skill and performance; Manpower is measured through number of workers, different type of skills, and time period; Leadership is also measured

through the effective decision making and responsible for managing of the firm. Planning is also be measure through Training (on the job training) including domestic training, foreign trainer and international training. If they have relation with each other than how much domestic firms, foreign firm and international firms are specialized with the inputs and outputs in the market and how much time period is required and how much increase the production of growth in the market.

3.1.3. Integration: The SMEs integration is measured through the firm's collaboration with number of domestic, foreign, and international firms for both the output as well as input of the products of domestic firm. Domestic goods creation is shaped by how and to what extent firm integrate into global supply chains.

3.2. Conceptual Framework of the Variables



The above factors of SMEs briefly described through innovation, integration and planning in Gujranwala. There are many factors and indicators that are not used by SMEs companies to the full extent but within the framework of the process changes they should be used at least partially.

Innovation is most identifying factor, which will be helpful to sustain SMEs. Over consistently the innovation in SMEs is growing in terms of technology capability, competitiveness, and financial factors. By employing latest technology and having requisite financial resources, a firm can innovate new products and lead the market.

Secondly, planning is another most important factor, which help in sustained development of SMEs. Planning in SMEs will also grow consistently human resource development, manpower, leadership and training. Investment in human capital is the best growth strategy for a business and without capable & well trained employees a business cannot succeed. Integration will also be growing in the term of supply chain of domestic and international firms. When domestic firms and internationals firms integrate with each other this leads to improved performance of SMEs. The information technology also plays a pivotal role in integration and it reduces wastage of resources and save time. Finally, all factors are expected to help to achieve better performance of SMEs.

3.3. Data collection technique

This study is qualitative and the data was collected through Survey Questionnaires from firms engaged in production of electrical products in district Gujranwala. According to the Government of Pakistan, there are a number of Small & Medium Firms working in Gujranwala. Majority of the SMEs in Gujranwala are producing Domestic Electrical appliances (Govt of Pakistan); hence, our target population consists of 433 Domestic Electrical Appliances units. These electrical appliances units are scattered in 15 areas but the researcher randomly selected 10 clusters in easily approachable areas of main city area (with more expectations of cooperation) having 304 units in total. Out of the given areas (as in Table 1), the number of units to be selected is defined by the concentration of units in any given area. Once the researcher have the number of units sampled

(see Table 1), the researcher used snowball sampling technique to conduct survey once the first unit is selected randomly.

The snowball technique at second stage (which is the non-probability sampling method used for unknown and rare population) helped us in getting timely access to targeted population. Either the entrepreneur or manager of the firm were interviewed at the premises of the firms through well-structure and pre-tested questionnaire. Despite the initial target of 100 units (the weighted sample), due to Covid-19 the researcher could only manage to conduct interviews at 35 units from ten randomly selected industrial clusters in Gujranwala.

	Frequency	**Percent**
Gondlanwala Road	6	17.1
Jinnah Road	4	11.4
shiekhupura Road	4	11.4
Pindi by pass	2	5.7
Hafiz Abad	4	11.4
Shaheen Abad	3	8.6
GT Road	4	11.4
Sialkot Road	2	5.7
Kangniwala	3	8.6
Nomania Road	3	8.6
Total	**35**	**100.0**

Table No 1: Distribution of Selected Sample Units

Data was collected at above places in Gujranwala. 17.1 percent data was collected in Gondalanwala road and 11.4 percent data was collected from Jinnah road, Shiekhpura road, HafizAbad and GT Road. While 5.7 percent data was collected from Pindi by pass and Sialkot road. Meanwhile, 8.6 percent data was collected from Shaheen Abad, Kangniwala and Nomania Road.

Chapter 4

RESULTS AND DISCUSSION

Due to the outbreak of COVID 19 in Pakistan, the data collection sample was reduced and the researcher were able to reach out to about 50 SMEs operating in Gujranwala. The data collection was done through personal visits to the SMEs and via online questioner filled by SMEs followed by a phone calls. Mostly the SMEs were reluctant to fill the questioner because of numerous reasons like they did not want to divulge business details, customer's details, raw material sources, their true capacity of output, export or import details, fear of more taxation etc.

However after convincing them in detail and explaining the purpose of this data collection they somehow agreed to cooperate. The online filled forms were not much reliable and mostly incorrect, incomplete or blank forms were returned by a number of SMEs. However, after the fine scrutiny of questioner forms and data, the researcher left with 35 workable data collection forms. The researcher had interviewed 19 owners and 16 managers. There were several questions in the survey form and everyone has given his own view point to the best of his knowledge. Below the researcher analyze each aspect of the interview and mention findings based on answers given by the respondents

In this survey, the researcher collected data from 26 small firms and 9 medium firms from various areas of Gujranwala city. Each firm has its own perspective to see the business world but to some question the researcher found unanimity of answers.

Table 4.1: Management Position

	Frequency	**Percent**
Owner/CEO	19	54.3
Manager/ supervisor	16	45.7
Firm Type		
Small	26	74.3
Medium	09	25.7

As the main object of doing business is profit making and to reduce operating cost, hence it has been generally found that SMEs strive to keep bare minimum number of employees and want to reduce their labor cost. So every worker is found over occupied and giving optimal level of output, as the unemployment is also prevailing in the market. Therefore it has been observed that majority of surveyed SMEs keep 1-10 employees only and 2nd major group of respondent firms keep 11-20 employees. Only 2 firms found with employees rage from 51 to 60.

Table 4.2: Total Number of Workers

Group	Frequency	Percent
1-10	15	43.1
11-20	11	31.6
21-50	7	20.1
51-60	2	5.8
Total	35	100.0

Similarly, it has also been found that 21 SMEs are with 1-10 skilled workers and second large group having 11-20 skilled workers are 12 number of SMEs. Generally the small firms keep only skilled workers and let them perform all other general tasks as well. Like the workers working on lathe machines are found master of giving finishing to the rough iron bodies of products and they are also responsible to clean the wastage and mess created during the working, at end of the day. To some extent unskilled workers are hired temporarily as per need like for loading & unloading of raw materials or finish products etc. No attendant or watch man is required and these things perceived as extra expenditures. This information shows that skillful workers are more needed in the SMEs. Similarly the tasks need to be performed by unskilled persons are of least importance for the SMEs owner and they are also not ready to pay for it

Table 4.3: Total Number of skilled worker

Group	**Frequency**	**Percent**
1-10	21	60.2
11-20	12	48.8
21-30	2	5.7
Total	35	100

In Figure 4.1 survey a question was also asked about the ownership of working space and it is found that 51.43% of interviewed SMEs are operating in rented buildings and 48.57% of interviewed SMEs are operating in Own building. This matter has been found interestingly based on investment decisions, business cycles and profitability of said business. Some owners are quite much happy to be on rented space and put huge investments in business development instead of locking their money in property purchase. Conversely, some owners prefer to be in own building which reduce rental expenditures and feel more comfortable with it.

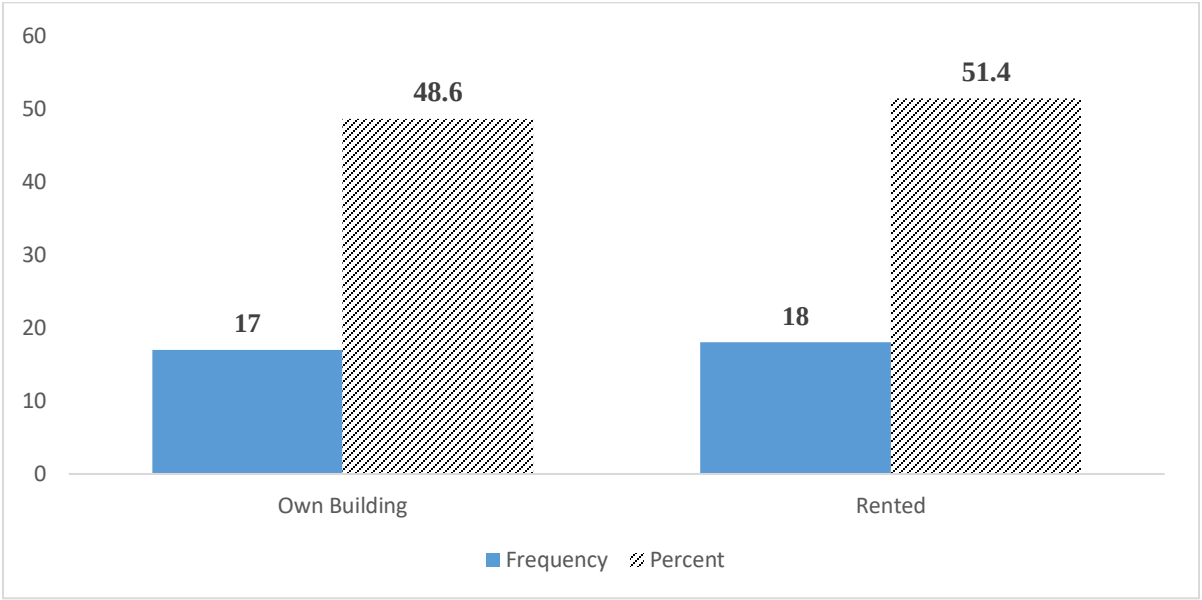


Figure 4.1. Firms operating space

The completion in SMEs in Gujranwala is intense and each one operating to give their best. Some firms says they have low cost strategy, some firms are striving hard to compete with quality leadership. The SMEs here in Gujranwala working with numerous type of customer like, some firms sell their products with their our name and tag on the finish products, some firms get the business of making finish products but put the tag of any name given buy the agent who will sell these products at some undisclosed market at his own price. However, the table above shows that about 37% firms has 21-30 competitors and 2.9% firms has 100 plus competitors. This information shows that to be into the market the SMEs have to be vigilant about the performance of their business and the survival of fittest will prevail.

Table 4.5: major competitors do you have in your product line?

	Frequency	**Percent**
0-10	10	28.7
11-20	9	25.9
21-30	13	37.2
31-40	2	5.7
More than 40	1	2.9
Total	**35**	**100.0**

Generally, the interviewed SMEs were found annoyed with Government and its policies. The frequency table shows the different bars of facilities provided by the government to the SMEs. Through the 74.29% respondents express that the government has provided infrastructure facility only despite the fact that roads of some areas are in bad condition and loading shedding of electricity is also prevailing in summer. Moreover, the 14.29% of respondents also mention that government also help the SMEs with small loans. This information suggest that their should be no trust deficit between business community and government. For the betterment of economy and prosperity in the country government should facilitate the SMEs with all what they deserve.

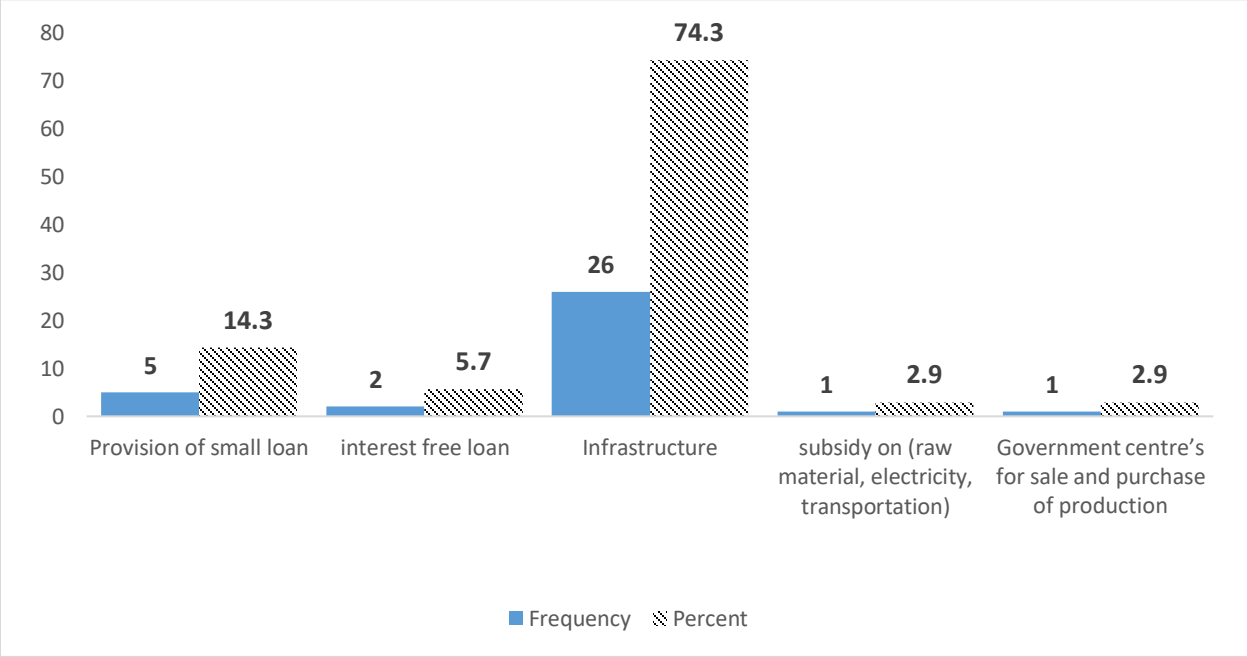


Figure 4.2. Provision of facilities by the government

4.1. Measures of Innovation:

The aim of this section is to probe the level of innovations being done here in SMEs of Gujranwala. As the Gujranwala is known as the industrial city since ages and famous across the country for its home appliances, electrical and other various types of industrial and house hold products.

The copy and imitation were found prevailing practice in the SMEs in Gujranwala. The most of interviewed SME's did not invest in Research and Development. They are either producing routine products or copying any new arrivals of big companies. To copy the new designs and making look alike products, is the only innovative work found in the responding SMEs. The graph shows out of 35 only 3 had specific research and development department to some extent while the rest of 91.43% sample had no such facility of their own. Based on this data, it can be said that the SMEs don't perceive any benefit by making investment on Research and development. They might be lake of vision or reluctant for such decisions. Government should come forward and help them by reducing the uncertainties for businesses.

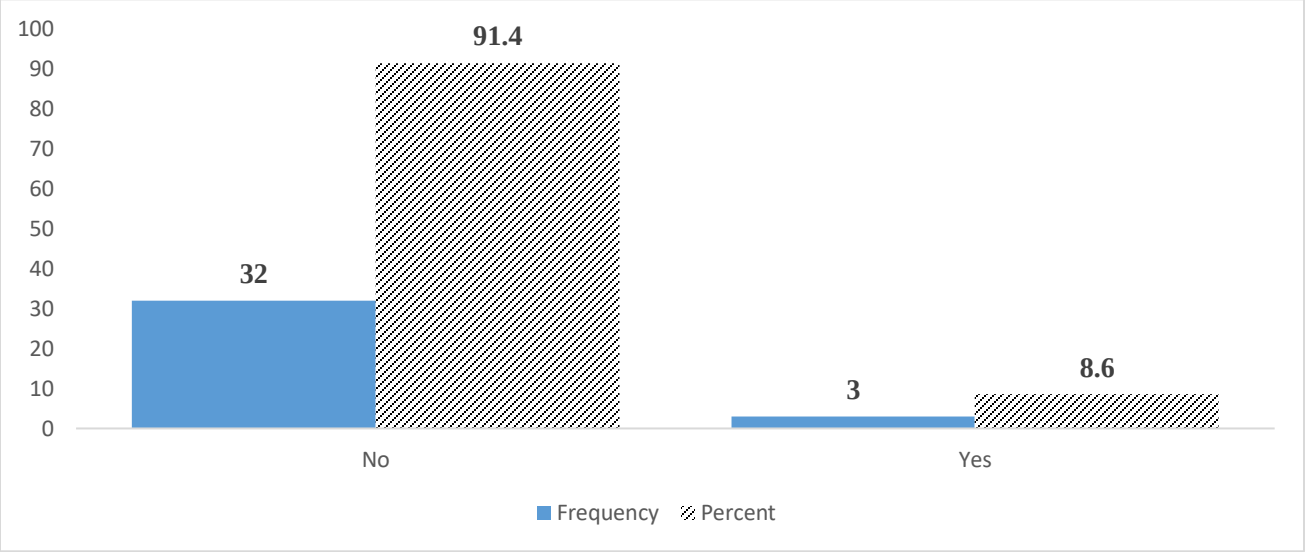


Figure 4.3. Research and Development section/department at the Firm

As there is no much innovative work, therefore there is no much staff dedicated to the innovation in respondent SMEs. The graph also shows that 68.57% firms don't have any staff dedicated for innovative work. Only 31.43% firms have some staff dedicated to the innovative work. This innovative work can be further narrow downed to the copying and imitation of new products of big companies. The plausible reason for such limited innovative work is financing, lack of resources, facilities, and most important lack of vision as the most of the owners are not very well educated and neither have any business education. The fear of taxes, FBR is also prevailing in the market, nobody is ready to pay taxes and just want to remain undocumented, and this behavior was found hindering the business development.

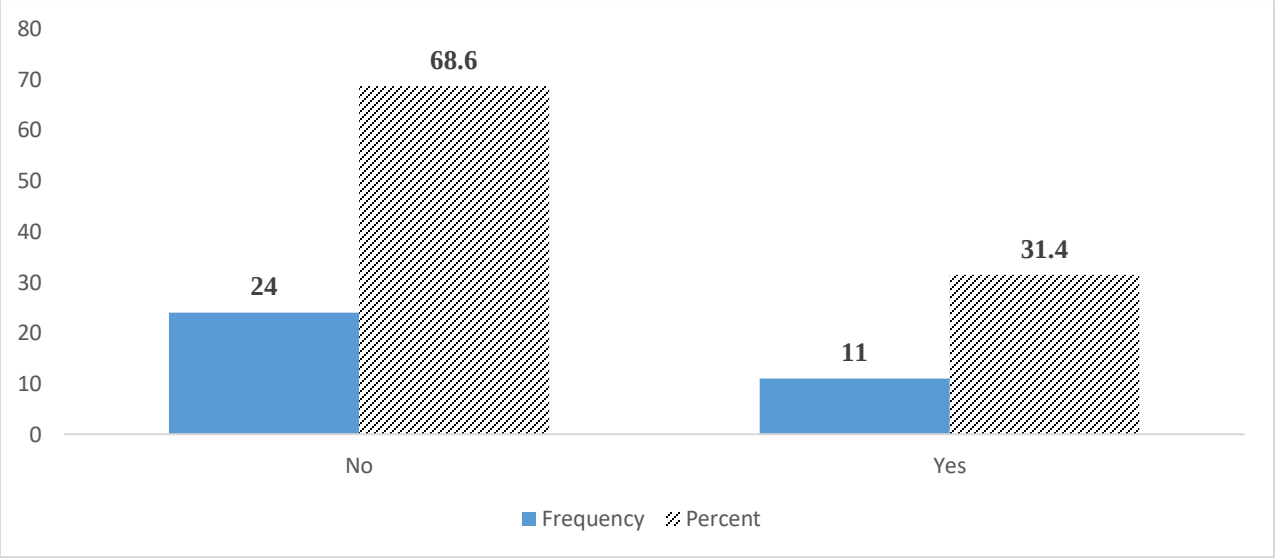


Figure 4.4. Dedicated staff for innovation at Firm

In Figure 4.5, it has been revealed that SMEs are very slow in innovative projects. Only 20% firms says that they have some successful innovative projects during the last 5 year. On the contrary, 80% says that they have no innovative projects. These statistics are linked with the previous questions about the innovation. This some they don't want to do because of their own reasons or lack of resources and jut fouling on today. And they just find it easy and quick money making technique just to keep an eye on the new arrivals of big companies and copy those products immediately. The customers on other hand also have psychology to buy look like products on cheaper rates.

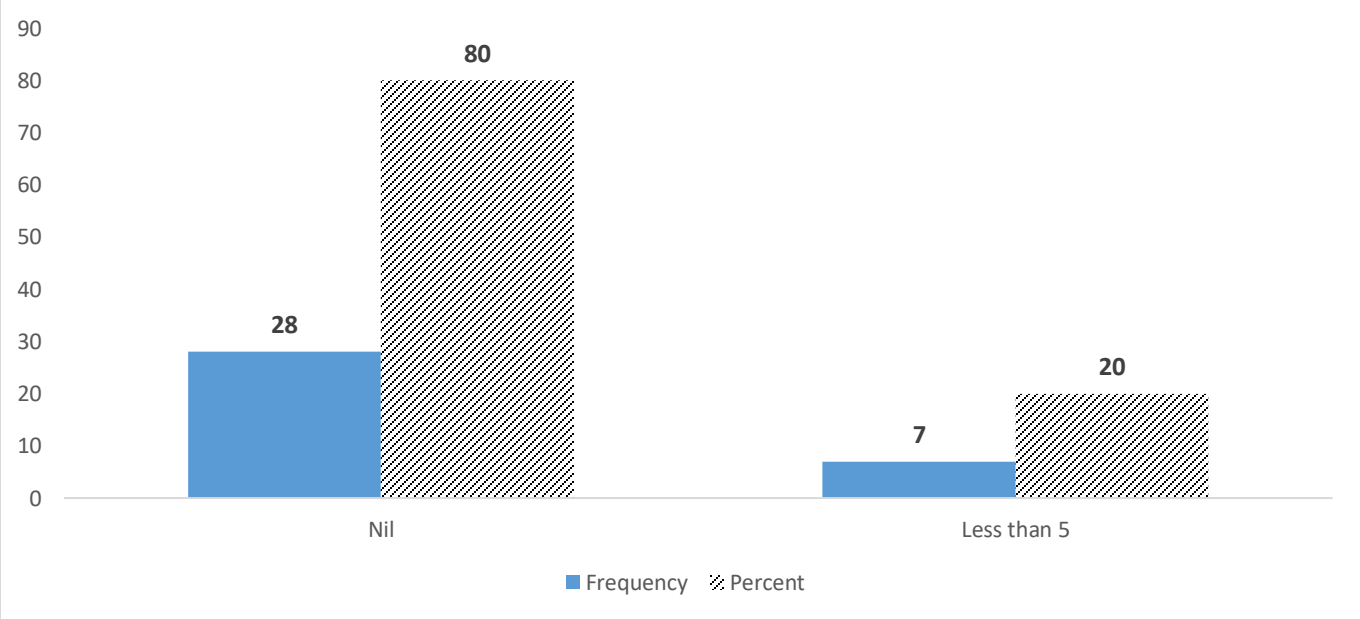


Figure 4.5. Successful innovative projects during the last 5 years

To know more about the innovation a question was asked about the projects have succeeded to a transfer to your main businesses (Creation of a business or product commercialization). As the Small firms do not have any enough government facility or capacity, so majority of interviewed SMEs do not have any successful project. 71.43% of SMEs says they do not have any successful project neither it succeeded to convert into a main business. On the other hand, 28.57% of surveyed SMEs says that they have some projects succeeded to a transfer to main businesses. They are good in expanding their business. Furthermore, it has also been revealed that our sampled SMEs had not filled any single patents during the last 5 year and they do not have any formal interaction with education institutions.

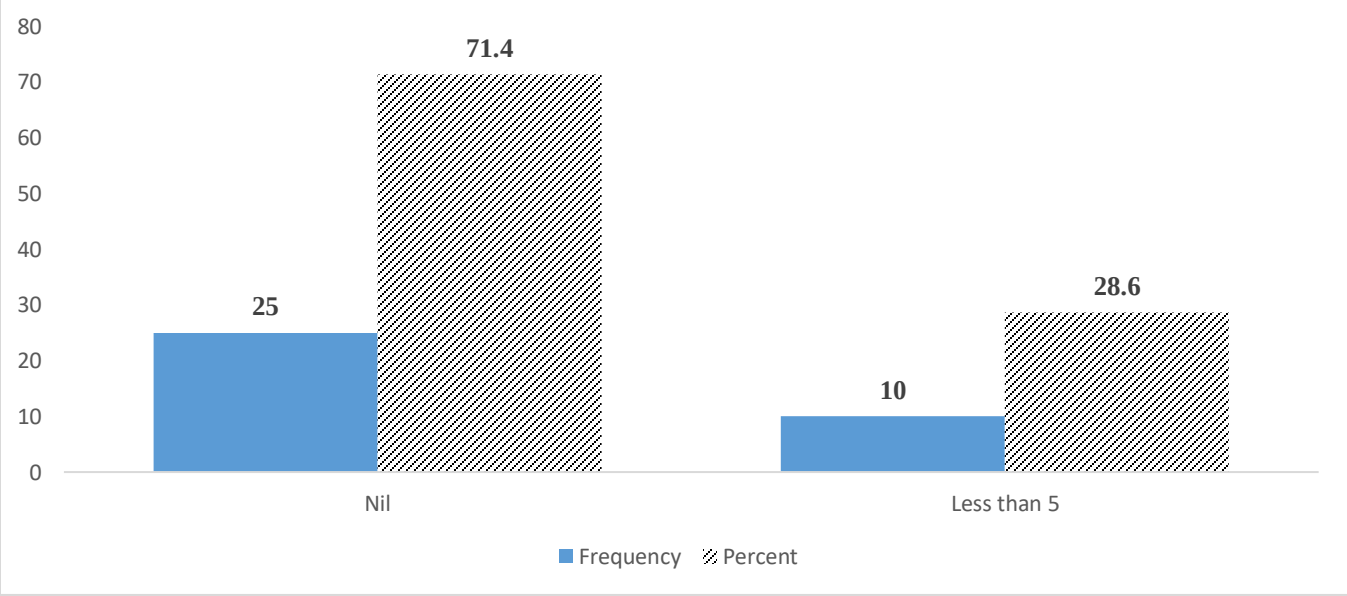


Figure 4.6. Projects leading to new business

This study also been revealed that 85.7% of SMEs utilize domestic machinery in their production facility. Whereas only 8.3% of SMEs use imported machinery and 5.7% of SMEs utilize mix of imported and local machinery for their production facility. The ratio of mix machinery is 1:6. This information's shows that importing a machine for SME is a big thing, though they utilize either locally made machines or buy used machines for their production facility. Only few SMEs have mix of local and imported machines.

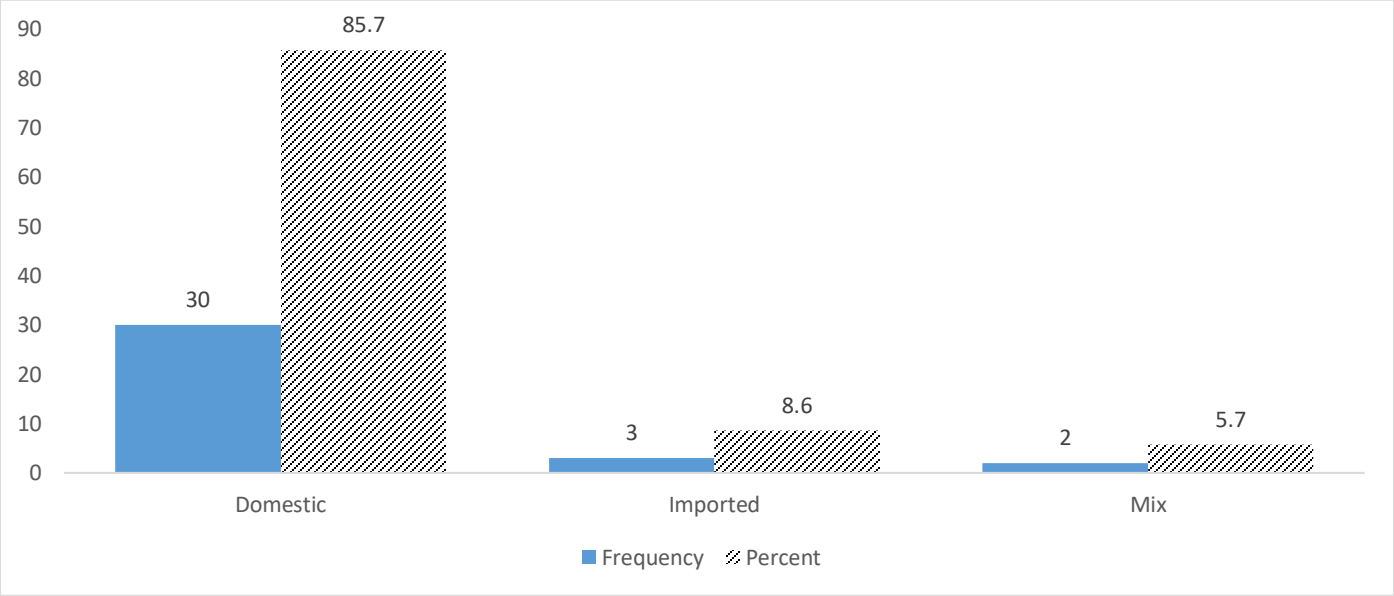


Figure 4.7. Type of machinery being used in production facilities/ firms

4.2. Measures of Integration:

This section aims to investigate how well the SMEs are integrated and to what extent information technology playing a role to achieve the objectives of the business.

In the below frequency table, respondent disclose that 97.14% of firms get locally available raw materials for their production. Only 2.85% firms purchase some imported raw material for the manufacturing of their products. SMEs mostly have domestic customers and export is not that much. Mostly the SMEs do not use Information Technology for integration because they don't have ample resources, enough capital and they also do not feel need of it because they are not well educated. They also can not foresee the benefits of Information Technology. Furthermore, SMEs also do not get any government facilitation, trainings or awareness sessions in this regard.

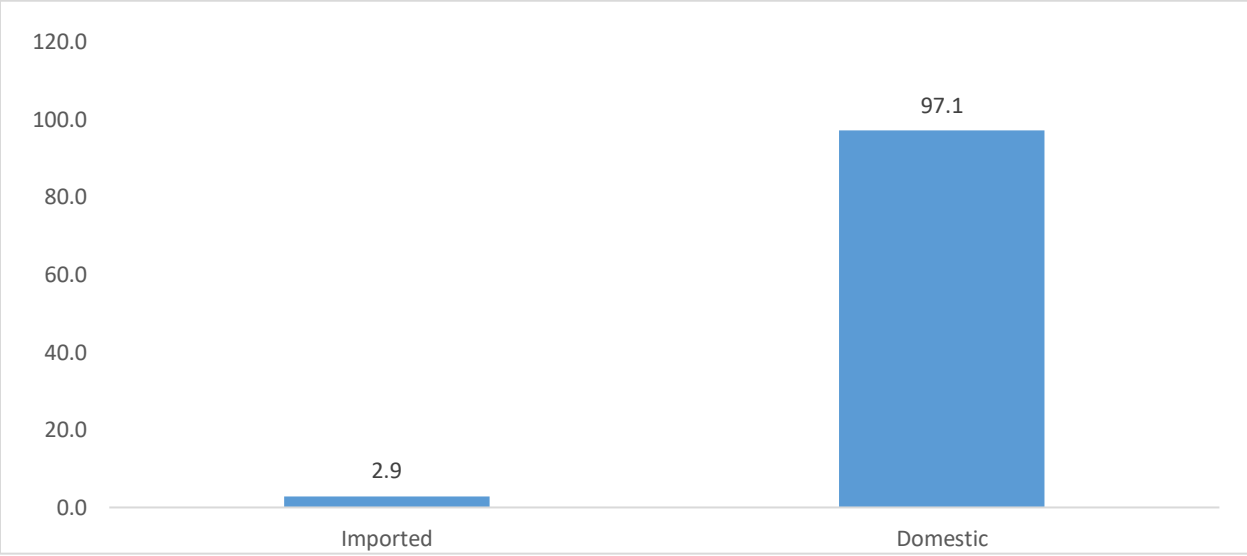


Figure 4.8. Availability and origin of raw materials

In the table 4.6 below, the respondents given their view point about the core benefit of the integration. The 62.9% of interviewed SMEs said that Integration reduces cost and it is the most beneficial aspect of the integration. The 2.9% respondents says that the core benefit of integration is reduction in error/wastage of materials and give optimal output of resources. The 34.3% of respondents reveal the benefit of integration as it saves time and improve efficiency. This information indicates that SMEs have the perception that integration is somehow a beneficial thing and integration can give benefit either in the shape of cost reduction, saving time or reduce wastage.

Table 4.6: Core benefits of integration

	Frequencies	**Percent**
Reduces cost	22	62.9
Reduce error/wastage	1	2.9
Save time	12	34.3
Total	35	100

4.3. Measures of Planning:

The goal of this section is to investigate the planning in SMEs. To measure the planning in SMEs questions were asked about the Human Resource Development, Manpower, Training and Leadership.

Generally, the surveyed SMEs are supportive for encouraging innovations and improvements but lack of resources, facilities and vision are hurdles to it. The improvements are more genuine and innovations are restricted to copying & imitation. The same information is shown by the graph that 74.29% SMEs are supportive for innovations and improvements and 25.71% are not. This information shows that at least the SMEs think that innovations and improvements are necessary for the survival of the business.

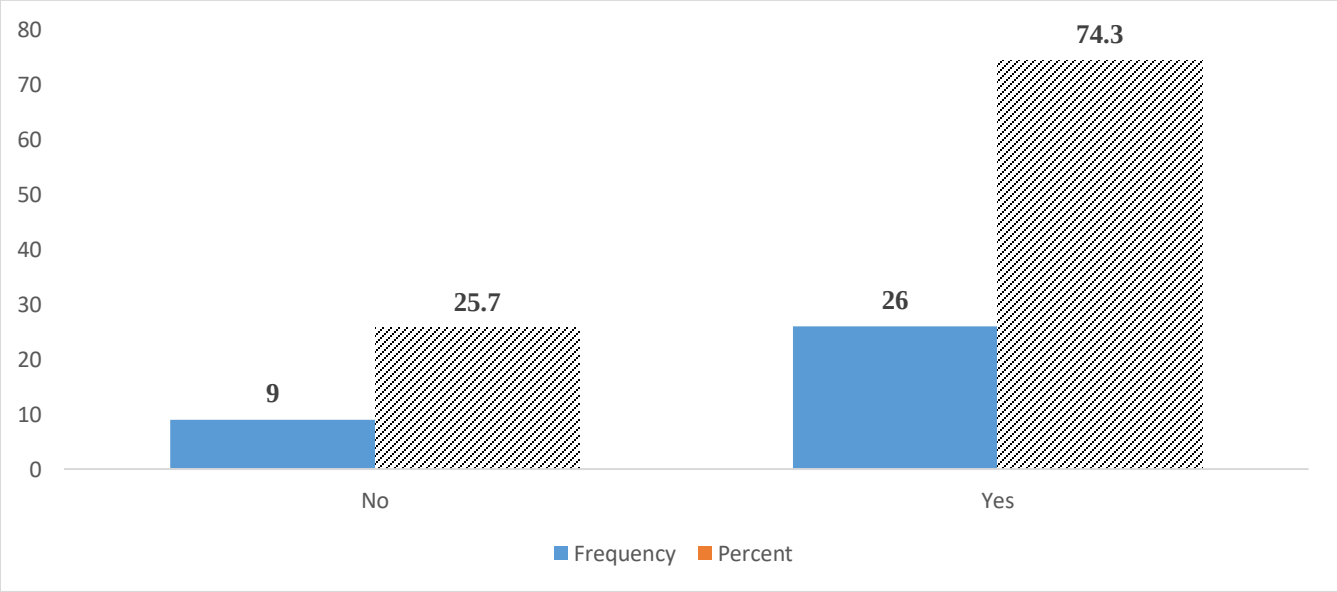


Figure 4.9. Business is Encouraging Innovation and Improvements

The surveyed SMEs are less likely to spend on Human resource development. Firms generally hire already skilled workers or least they do is the on job trainings. In our sample the researcher found that 71.43 percent spend 5k-10k on HRD trainings per year. Whereas 22.86 percent spend 10k-20k on HRD training per year and 5.714 percent spend more than 20k on the HDR trainings per year. The SMEs don't want to spend on employees as the owners are not that much educated so they don't think that human resource development is a beneficial idea. Whereas, if business adopt human resource development, it improves the working capabilities of the employees, bring improvements in the business process and increase operational performance of the business.

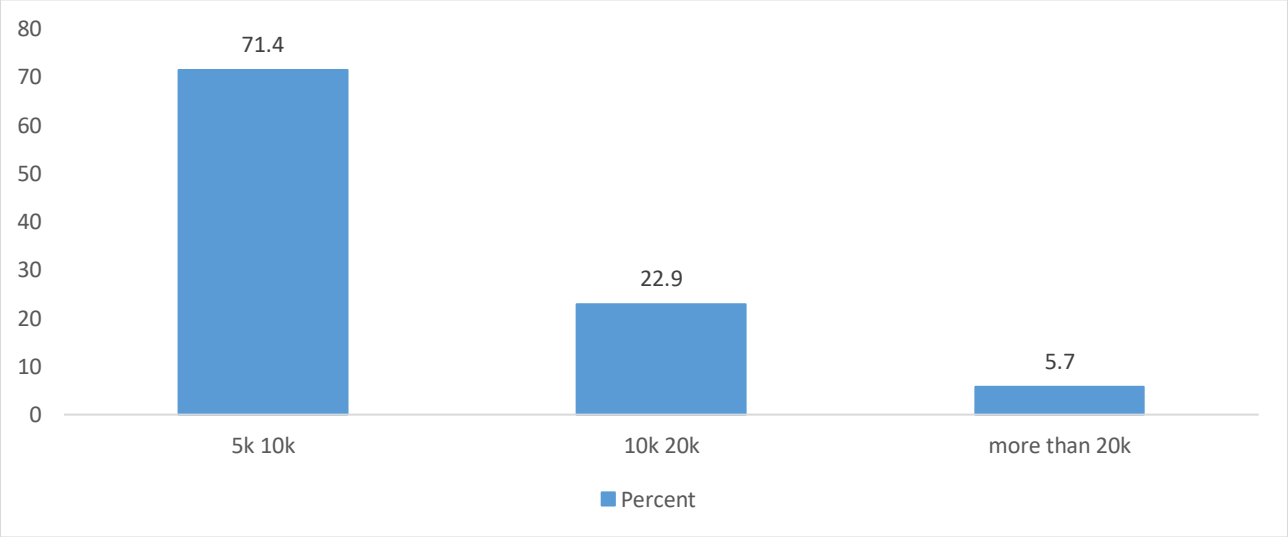


Figure 4.10. Firm's per year spending on human resource development (Trainings)

The majority of SMEs does not have any outstanding skill development mechanism. Barely, on the job trainings are the main focus of the SMEs as it does not involve any extra cost to the firm. In our sample, it is found that 33 firms develop skills of their workers through on the job trainings and 2 firms' states that their employees get local trainings. This information shows that SMEs are less likely to invest on the trainings of the employees.

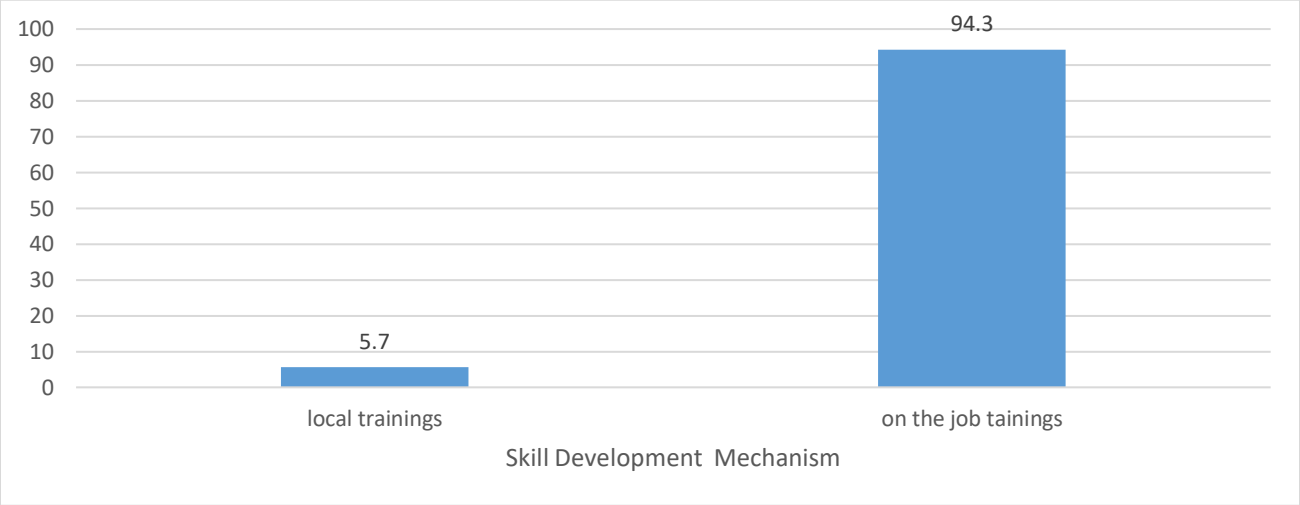


Figure 4.11. Skill development mechanism in the firm

In this survey, it has also been observed that 91.4% of SMEs do not have specific HR section. The Owner is HR and he is also not well qualification but he is leading everything and all in all in the SME. Only 8.6% of SMEs says they have HR section and they are mainly the medium size firms. The lack of resources, small setups are the main reasons for not having proper Human Resource section in the SMEs. Some of the SMEs simply responded that they don't need it.

Table 4.7: Firm having HR section

	Frequency	**Percent**
No, owner is HR	32	91.4
Yes	3	8.6
leads the HR section		
Owner	32	91.4
Manager	3	8.6
Qualification		
Matric	7	20.0
Intermediate	14	40.0
Bachelor	14	40.0
Total	35	100.0

SMEs in Gujranwala responds differently about how they explore new markets. Majority of SMEs says that different agents find them by themselves instead of firm explore new markets. The agents purchase finish products in bulk and sell them across the country or overseas may be. Sometimes the agents provide specifications, quality, aesthetics and even name tags to fix on the finish product. Same is evident by the survey results, 48.6% firms explore new markets via agents.

Apart from the agents, 17.1 percent SMEs explored market through personal links, 11.4 percent through dealer, while 14.3 percent SMEs explore markets through digital advertisement (through cable operators). The search of markets for fine input/raw materials is same as exploring the new markets for finish products. The markets exploration is also a business secret that the SMEs really don't want to divulge. They want to keep it secret for the protection and survival of the business.

Table 4.8: How new market are explored

	Frequency	**Percent**
Agents	17	48.6
Personal links	6	17.1
Through dealer	4	11.4
Digital advertisement	5	14.3
Through visit	2	5.7
Business networks	1	2.9
Total	35	100.0

Another important question to SMEs was in survey, what is your competitive edge? What make you different from others? In this survey 68.57% of respondent firms tell us quality of product key to success for them and they emphasis that If the quality of product is better than the competitors then our product will be sold out in the market. The 5.714% of respondents says low price is essential to survive and compete in the market. The 22.86% of respondents are of the view point that Good will can make you able to compete in the market. Generally the firms are using lathe machine, milling machine, molding machine, drill machine, Varma machine and some other equipment as per requirement for their production.

This information indicates that most of the SMEs want to be the quality leader. The better quality is their competitive edge and better quality can give space to a business to charge more for its products.

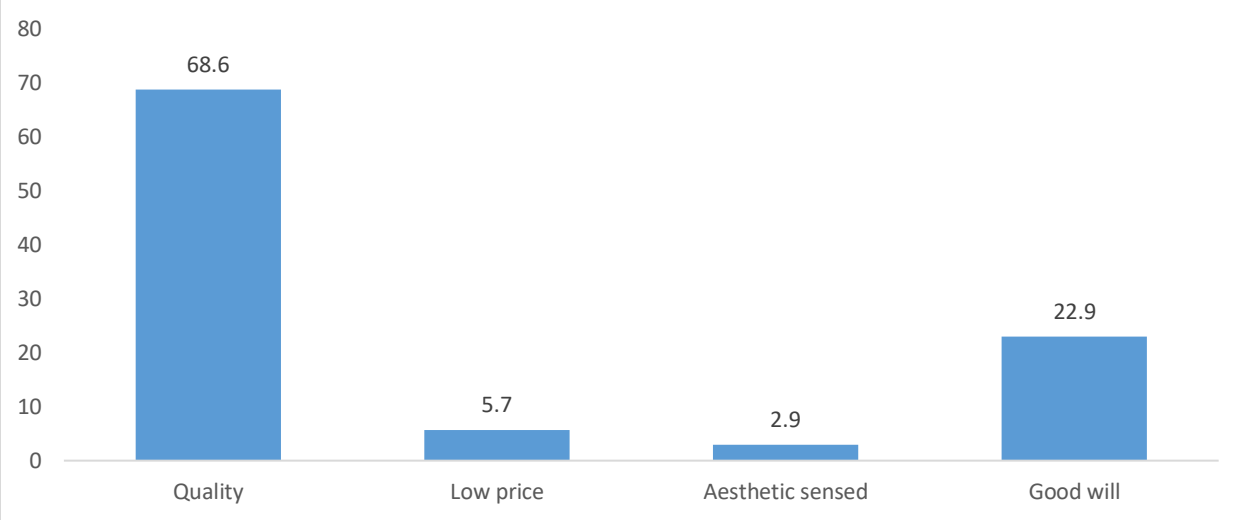


Figure 4.12. What makes the firms' product different from other

Furthermore, there is also not any specific procedure to know the feedback of customers. Getting feedback is merely restricted to the words of mouth firms ask from the customers on second time trading or repeating selling process with same customers. However seeking feedback is decisive for the business because it allows the SME to make changes and bring improvements as per customer needs. As soon as the production meets the customers' expectations, more it will sell and ultimately will develop business with increased profitability. It's an era of too much competition, too much look like products are available in the market and to survive in the market the finish product has to be as per customer's needs.

Moreover, the factors which badly affect the performance of a firm are absence of raw material, price of raw material, unavailability of loans, absence of infrastructure, government policies and taxation. Generally the SMEs don't feel good about the government policies, taxation systems, and electricity tariffs, withholding taxes on cash withdrawals from the banks and about the visits of FBR representatives to the industrial areas to gauge the correct tax amounts as per business volume. Some of the concerns are genuine and some are rhetoric as nobody is ready to pay the accurate due taxes to the government. The blackout of electricity in summer, inflationary effects on the raw materials prices especially in the COVID 19 period are harmful for the SMEs.

CPEC and the SMEs

Generally the local SMEs are perceiving CPEC as threat to their business because it is inbuilt in their minds that they are and they would be unable to compete the Chinese products.

Majority of respondents think that the only option to get benefit from CPEC is the trading (middle man business). The trading is already in practice here, people simply import Chinese products and sell into the market and making huge profits. Same is also evident from the table above as 54.3% of respondents says trading is best option to get benefit from CPEC. However, 25.7% of respondents are of view point that joint ventures can also give benefit in preview of CPEC. The 14.3% of respondents says to be the part of supply chain is also an option to get benefit from CPEC.

Table 4.10: The plausible mode of Expansion for your business with China (in CPEC preview)

	Frequency	Percent
Joint ventures	9	25.7
Be part of supply chain	5	14.3
Relocate industry from china	2	5.7
Just Trading (middle man business)	19	54.3
Total	35	100.0

Furthermore, SMEs are unaware about the CPEC and neither have they had any specific idea to get benefit of CPEC. Neither government nor local chamber of commerce has arranged any foreign visit for them. So the people mainly know CPEC from newspapers, social media and electronic media.

Chapter 5

CONCLUSION AND IMPLICATION

5.1. Conclusion:

This study has gone through the SMEs of Gujranwala in detail and found numerous facts about the Innovation, Integration and planning of those SMEs in the preview of CPEC. As far as innovation is concerned, SMEs do not much focus on that and innovation is merely restricted to the copy and imitation of new arrival products of big national and internal companies. Neither any SME is found having link with higher education institutions nor majority of SMEs have any staff dedicated to innovations.

The integration is found like, they have perfect supply chain system for their business, like SMEs get ready made body parts of relevant products from furnaces in Gujranwala, electric components, iron sheets, paints and other necessary raw materials from the local markets of Gujranwala. Chiefly the SMEs have local customers, do not do exports and do not use Information technology in production facilities. The major benefit of integration they perceive is the cost reduction and saves time.

The planning aspect of SMEs is mainly centered to the Owners only. The owners are all in all and solely do planning for overall affairs of the business. Mostly the SMEs do not have any HR section, HR is owner and he is managing all human resources. The SMEs hire workers who already possess relevant skills or least they get is the on job trainings. New markets to sell the products and securing raw materials are being explored through agents, personal relations. The SMEs also want to be have competitive edge of quality and low cost.

About the CPEC, SMEs perceive it as a threat instead of blessing and in preview of CPEC the most workable thing for them is just trading (middle man business). As the trading is already in practice here, people simply import Chinese products and sell into the market and making huge profits. The SMEs are blank about the CPEC and information all they have is coming from newspapers, TV channels etc. None of any SMEs owner/manager says he has done any foreign visit supported by government nor local chamber of commerce to know about the CPEC.

5.2. Theoretical Implications

The information gathered through the survey states that the degree of innovation, integration and planning have meaningful implications on SMEs. The innovative products and designs can rise the businesses from bottom to top but it dependents on the decisive decisions like what they want to be and how much business can invest for research and development. The same implications are possessed integration factor. The integration can synchronize information technology, the culture of the SME, its objectives and align technology with business strategies. And the investment decision for adopting information technology in a SME is of vital importance.

The planning has pivotal role in business development and survival as well. The efforts of a SME for developing its workers can create perceptions of support and care for workers, which brings a sense of attachment to the SME and obligation to return the favor among the workers. Having better HRD practices, the employees of the SMEs start working with more dedication and commitment. Moreover, to get benefit from the CPEC, the SMEs need awareness, support and training from the government and from the local chamber of commerce. Generally the SMEs are taking CPEC as a potential threat to their businesses because the owners of SMEs have different

perceptions in their minds like they would be unable to compete with Chinese products. Currently, firms are eyeing to benefit from the CPEC in just trading (middleman business).

5.3. Practical Implications:

The results of this study raise the need for betterment in Innovation, Integration and planning in the SMEs to compete and take advantage of CPEC. The Owners of SMEs can invest more to bring the genuine innovation in their products. More resources can be implied for better integration and got benefit of exporting goods. Furthermore, the planning aspect of SMEs should not be restricted to the Owners only. A consortium of SMEs should be formed to make planning, trainings and skill development mechanism affordable. About the CPEC, SMEs need more awareness for business opportunities rather thinking of a just middleman business.

5.4. Future Research:

Due to the COVID-19 and prevailing lockdown, the researcher had to reduce the sample size. Therefore, there is room for incorporating more industrial cities and increased sample size from all over the Pakistan to bring more interesting results. The broad spectrum study can help to devise more appropriate policies for the development of SMEs in Pakistan, in the preview of CPEC.

5.5. Recommendations

Based on the findings, following recommendations are proposed:

1. For innovation in SMEs Government should support the links between SMEs and higher education institutions for producing state-of-the-art products at local level.
2. As the SMEs admit the benefit of Integration, so the businesses should invest on Information technology for better integration and even get the advantage of exporting products.
3. There is a dire need for better planning in the SMEs and SMEDA should provide incentives for formal trainings and skill development programs.
4. The Government should also come forward to create awareness and present true picture of the CPEC, so that local SMEs can perceive CPEC as a business opportunity instead of a threat. Furthermore, the interaction with Chinese firms may also be increased and collaborations should be supported by the local chamber of commerce under the supervison of Government of Pakistan

5.6. Limitations of the study

The primary concern of this study was to investigate the degree of innovation, planning and integration in the SMEs of Gujranwala. For this purpose, a comprehensive survey was planned however, due to pandemic only limited interviews could have been conducted. Hence, due to denial of access into the firms (due to Covid-19) only limited observations could have been collected, which is the limitation of the study.

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APPENDICES

Appendix A

Name of Manufacturing Unit		
	Frequency	**Percent**
prime washing machine	1	2.9
Al farid engineering	1	2.9
Miraj Fans	1	2.9
EMCO grander & water pumps	1	2.9
Punjab Asia	1	2.9
homes washing and dryer machine	1	2.9
Wahab enterprises	1	2.9
Super life electrical industry	1	2.9
super action home appliances	1	2.9
MYN enterprises	1	2.9
Wellisian engineering	1	2.9
Muhammad Bashir & sons	1	2.9
Haroon electrical industries	1	2.9
united home appliances	1	2.9
Yashica home appliances	1	2.9
starco home appliances	1	2.9
fonex home appliances	1	2.9
Domesto home appliances	1	2.9
paradise home appliances	1	2.9
Babar Fans	1	2.9
Raja Motors	1	2.9
Fico Industries	1	2.9
Decent washing machine	1	2.9
Prime air cooler	1	2.9
Gharjakh Asia	1	2.9
Unique washing machine	1	2.9
Abdullah fans	1	2.9
Delun home appliances	1	2.9
Irfan engineering works	1	2.9
Golden Pumps	1	2.9
Rasheed Fans	1	2.9
National iron	1	2.9

Mughal Home appliances	1	2.9
Majid Munir company	1	2.9
Arif Iran merchant	1	2.9
Total	**35**	**100.0**

Appendix B

Questionnaire form

Dear Respondent,

This survey is being conducted for a research study on "State of innovation, Integration and Planning in SME's: Investigating the Path to Success" under Department of Business Economics, at Pakistan Institute of Development Economics (PIDE), Islamabad.

This research intends to look into the planning processes, current policies and practices relating the existing Electrical Home Appliances based SME's in Gujranwala. Several aspects like existing deficiencies, policy initiatives needed, inter-sectoral collaboration and infrastructure development are desired to be analyzed for this study. The information and identity of the respondents will be kept highly confidential. Your cooperation is highly appreciated in this regard.

General Information for Interview

Date of Interview _____ Place of Interview _____

Name of Interviewer_____

A: General Information of Firm

1. Name of manufacturing unit _____

2. Who are the main clients of your products?

    1. Industries/Companies 2. General Consumers (Domestic/foreign)

    3. Other type? _____

3. Year of establishment _____

4. Category your firm fall in: Small_____; Medium: _____, Large:_____, Other:____

5. Nature of Respondent: a. Owner (Employer) b. Worker (Employee)

6. Designation _____

7. Gender: a. Male b. Female

8. Total number of workers in your firm: _____

9. Total number of **skilled** workers in your firm:_____

10. Total number of **unskilled** workers in your firm: _____

11. **Who are the customers of your products and services?**

a. **Consumer's** **b. Businesses** **c. Institutions**

12. Are you operating in?

1. Own building 2. Rented 3. Government 4. Donated 5. Inherited

13. How many (major) competitors do you have in your product line:

1. In local markets _____
2. In international markets _____

13. Do you have the provision of following facilities by the government?

Sr. No.	**Factors**	**No (1)**	**To some extend (2)**	**Too much (3)**
1	Provision of small loan			
2	Interest free loan			
3	Infrastructure (e.g. water, road, telephone and electricity).			
4	Exemption of tax			
5	Subsidy on (raw material, electricity, transportation)			
6	Government centre's for sale and purchase of production			
7	Training facilities for workers			

11. Other General information of firm:

_____

_____

B: Measures of Innovation:

1. Does firm has ecommerce website/ online sale etc?
    a. Yes b. No
2. Does firm have its own research and development section/department?
    a. Yes b. No
3. Does firm have staff dedicated to innovation?
    a. Yes b. No if yes then how many_____
4. During the last 5 years, how many innovative projects have been successful?
    a. Nil b. Less than 5 c. 5 to 10 d. More than 10 e. _____
5. How many projects have succeeded to a transfer to your main businesses? (Creation of a business or product commercialization)
    a. Nil b. Less than 5 c. 5 to 10 d. More than 10 e. _____
6. Have you filed any patents in the past 5 years?
    a. Yes 2. No

    If Yes, please state number_____. If No, state why you could not?

    _____

    _____

7. Do you have any partnership(s) with high education institutes?
    a. Yes b. No if yes then how many institutes
8. Type of machinery being used in production facilities/ firms
    a. Imported b. domestic c. Mix (if yes, ratio(I/D)?:……/……)

C: Measures of Integration:

1. What is the firm`s supply chain system and how firm manage it?

   _____

   _____

2. Does firm do exports and what is the number of firms?
   a. Yes (Number of firms_____); (Number of destinations/countries _____)
   b. No
3. What about the availability of raw materials and how many firms providing it?
   a. Imported (Number of firms_____); (Number of countries _____)
   b. Domestic (Number of firms_____)
4. What are the main customers of the company?
   a. Foreigner b. Domestic c. both (ratio:F/D……./……..)
5. Does company use I.T for integration?
   a. Yes b. No (if yes , details about I.T equipment's and applications)

      _____

6. What is the core benefit of integration?
   a. Reduces cost, b. Reduce errors/wastage, c. save time.

D: Measures of Planning:

2. **Does Business is Encouraging Innovation and Improvements?**
   a. Yes b. No
3. How much firm spend on human resource development (Trainings) per year.
   a. Less than 5 K b. 5K-10K c. 10k to 20k d. more than 20K
4. What is skill development mechanism in the firm?
   a. Local trainings b. Foreign trainings c. On job trainings
5. Does firm has HR section and what is its strength.

   _____

6. Who leads the HR section and what is his/her qualification?

   _____

7. Do the firm has relevant education/degree holders for all required fields?

_____

_____

8. How the planning does takes place?

_____

_____

9. What is the source of new technologies for your business and how do you adapt it?

_____

_____

10. How do you search fine inputs/raw materials sources?

_____

11. How new markets are explored?

_____

12. What make you different from others?

    a. Quality b. Low price c. Aesthetic sense d. Good will e. Other _____

13. What technology or modern equipment's you are using to manufacture/produce goods and services

_____

14. How you promote your business?

    a. Advertisement b. Promotions c. Others_____

15. Any mechanism to know the **Customer Satisfaction?**

    a. **Feedback forms** **b.** Asking verbally

16. **Is business is ensuring smooth production and timely delivery of goods and services.**

    a. Yes b. No **(reason)_____**

17. What is the most appropriate direction for your company's business development over the last five years?
    a. Expansion
    b. Downsizing
       (Reasons_____)
    c. Same status
       (Reasons_____

18. If answer to Question 17 is **Expansion**, then select from the following probable reason(s) for better performance

S.#	Reasons	Yes	No
1	Increase in sales due to export facilitation policies		
2	Increase in local market sales		
3	Increase in sales due to higher prices		
4	Increase in sales due to development of new products / services		
5	Increase by using foreign technologies to reduce cost of production		
6	Production of value-added products / services		
7	Reduction in procurement costs (Raw Material)		
8	Reduction in other costs (improved cost competitiveness-Utilities)		
9	Improved sales efficiency		
10	Improved production efficiency		
11	Improvement in electricity provision		
12	Improvement in gas provision		
13	Increase in business activity after CPEC		
14	Availed special Incentives/Concessions/SROs from Government		
15	Increase in sale after improved security situation in the country		

Any other:

_____

_____

19. Which of the following factors negatively affect the performance of your firm?

No.	Factors	Do Not Affect	Affect to some extent	Affect Extremely
1	Absence of Raw material availability			
2	Absence of Availability of loan			
3	Absence of Infrastructure (e.g. water, road, telephone and electricity).			
4	Absence of Skilled labour force			
5	Government Policies			
6	Absence of Marketing skills			
7	Absence of Designated industrial areas			
8	Prices of raw material			
9	Availability of foreign goods in local market			
10	Taxation			
11	Absence of Subsidy (on raw material, electricity, transportation)			
12	Absence of facilitation centres for sale and purchase of inputs			
13	Absence of facilitation centres for sale and purchase of output produced			
14	Absence of Training facilities for workers			

Any other:

_____

_____

Section 2

1. How do you perceive CPEC? An Opportunity OR a Threat? Kindly explain. How?

   _____

   _____

   _____

2. What is the plausible mode of Expansion for your business with China (in CPEC preview)
   a. Joint Ventures
   b. Be part of Supply Chain
   c. Technology Transfer
   d. Relocate industry from China
   e. Just trading (middle man business)

3. Do you have enough information & vision about how to develop your business (in preview of CPEC) or how to get benefit of CPEC opportunity?
   Answer; _____

   _____

4. Has government recently facilitated any foreign visit (especially China) for the manufacturers or Chamber's representatives to explore opportunities for business expansion?

   If Yes, where?

   _____

   _____

--Thank You-